VOL. I.

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1911.

No. 925 1912

THE DIAMOND COAL AND COKE COMPANY, APPELLANT,

vs.

THE UNITED STATES OF AMERICA.

APPEAL FROM THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE EIGHTH CIRCUIT.

FILED FEBRUARY 16, 1912.

(23,062)

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Pleas and Proceedings in the United States Circuit Court of Appeals for the Eighth Circuit, at the September Term, 1911, of said Court, Before the Honorable Willis Van Devanter and the Honorable William C. Hook, Circuit Judges, and the Honorable John E. Carland, District Judge.

Attest:

[Seal United States Circuit Court of Appeals, Eighth Circuit.]

JOHN D. JORDAN,
Clerk of the United States Circuit Court of Appeals for the Eighth Circuit.

Be it remembered that heretofore, to-wit: on the fifteenth day of October, A. D. 1909, a transcript of record, pursuant to an appeal allowed by the Circuit Court of the United States for the District of Wyoming, was filed in the office of the Clerk of the United States Circuit Court of Appeals for the Eighth Circuit, in a certain cause wherein the United States of America is Appellant, and The Diamond Coal and Coke Company, a Corporation, is Appellee, which said transcript of record is in the words and figures following, to-wit:

1 Pleas in the Circuit Court of the United States for the District of Wyoming, Sitting at Cheyenne.

Be it Remembered that heretofore and on, to-wit, the 12th day of June, in the year of our Lord, One Thousand, Nine Hundred and Seven (1907), came The United States of America, by Hon. Charles J. Bonaparte, Attorney General of the United States; Hon. Henry M. Hoyt, Solicitor General of the United States; Hon. Timothy F. Burke, United States Attorney for the District of Wyoming; Hon. S. R. Rush, Hon. M. C. Burch and Hon. Ernest Knaebel, of counsel, and filed in said court its bill of complaint, and sued out and under the seal of said court a subpoena in chancery against The Diamond Coal and Coke Company, a corporation.

And said Bill of Complaint is in words and figures as follows, to-wit:

2 The Circuit Court of the United States for the District of Wyoming.

The United States of America, Plaintiff,
vs. In Equity.
The Diamond Coal and Coke Company, a corporation, Defendant.

To the Judges of the Circuit Court of the United States for the Eighth Circuit and the District of Wyoming—In Equity:

Charles J. Bonaparte, Attorney-General of the United States, for the United States of America, complainant herein, brings this bill of complaint against The Diamond Coal and Coke Company, a corporation organized and existing under the laws of the State of Utah, and a citizen of the State of Utah, and, complainant says:

That on the 1st day of January, 1900, complainant was the owner in fee of the following-described tracts of land situated in the county of Uinta, in the State of Wyoming, namely:

The west half of the northwest quarter, the west half of the southwest quarter, the east half of the southwest quarter, the north half of the northeast quarter, the northeast quarter of the northwest quarter, the south half of the northeast quarter, the southeast quarter of the northwest quarter, the north half of the southeast quarter, and the south half of the southeast

quarter, all in section eighteen; the west half of the northwest quarter, the west half of the southwest quarter, the southeast quarter of the northwest quarter, and the northeast quarter of the southwest quarter, all in section twenty; the west half of the northwest quarter, the east half of the southwest quarter, the north half of the northeast quarter, the northeast quarter of the northwest quarter, the south half of the northeast quarter, the north half of the southeast
3 quarter, and the south half of the southeast quarter, in section thirty, all in town twenty north, range one hundred and sixteen west; also the north half of the northeast quarter, the northeast quarter of the northwest quarter, the south half of the northeast quarter; the southeast quarter of the northwest quarter, the west half of the northwest quarter, the north half of the southeast quarter, the southeast quarter of the southeast quarter, the southwest quarter of the southeast quarter, the east half of the southwest quarter, the west half of the southwest quarter, all in section six; also the east half of the northwest quarter, the north half of the southeast quarter, in section eighteen, all in town nineteen north, range one hundred and sixteen west; also the east half of the northeast quarter, the south half of the northeast quarter, the north half of the southeast quarter, the south half of the southeast quarter, the north half of the northwest quarter, the south half of the northwest quarter, the north half of the southwest quarter, and the south half of the southwest quarter, in section twelve, all in town nineteen north, range one hundred and seventeen west.

That all of said lands were at that time vacant, unreserved and unappropriated, were rough and broken in character, unfitted for agricultural purposes, and of slight, if any, utility for grazing, but were then known coal lands, and were chiefly valuable as such and of the value of one million dollars and upwards.

2. Your orator further shows that the only manner in which said lands could be legally entered and purchased from complainant was through compliance with an act of Congress entitled "An act to provide for the sale of lands of the United States containing coal," which act was approved March 3, 1873, and in part, as found in the Revised Statutes of the United States, reads as follows:

"Sec. 2347. Every person above the age of twenty-one years, who is a citizen of the United States, or who has declared his intention to become such, or any association of persons
4 severally qualified as above, shall, upon application to the register of the proper land office, have the right to

enter, by legal subdivisions, any quantity of vacant coal-lands of the United States, not otherwise appropriated or reserved by competent authority, not exceeding one hundred and sixty acres to such individual person, or three hundred and twenty acres to such association, upon payment to the receiver of not less than ten dollars per acre for such lands, where the same shall be situated more than fifteen miles from any completed railroad, and not less than twenty dollars per acre for such lands as shall be within fifteen miles of such roads."

"Sec. 2348. Any person, or association of persons severally qualified, as above provided, who have opened and improved, or shall hereafter open and improve any coal mine or mines, upon the public lands, and shall be in actual possession of the same, shall be entitled to a preference-right of entry, under the preceding section, of the mines so opened and improved; Provided, That when any association of not less than four persons, severally qualified as above provided, shall have expended not less than five thousand dollars in working and improving any such mine or mines, such association may enter not exceeding six hundred and forty acres, including such mining improvements."

"Sec. 2350. The three preceding sections shall be held to authorize only one entry by the same person, or association of persons; and no association of persons, any member of which shall have taken the benefit of such sections, either as an individual or as a member of any other association, shall enter or hold any other lands under the provisions thereof; and no member of any association which shall have taken the benefit of such sections shall enter or hold any other lands under their provisions; and all persons claiming under section twenty-three hundred and forty-eight shall be required to prove their respective rights and pay for the lands filed upon within one year from the time prescribed for filing their respective claims; and upon failure to file the proper notice, or to pay for the land within the required period, the same shall be subject to entry by any other qualified applicant."

Your orator further shows that the Commissioner of the General Land Office of complainant, as authorized by said act of Congress, issued certain needful rules and regulations, whereby to carry into effect its provisions, which were duly promulgated throughout the United States, and particularly through the States wherein lands of the United States bearing coal were situated, for the guidance of all persons whomsoever, which rules and regulations are set forth in volume 1 of the Decisions of the Department of the Interior, relating to public

lands, beginning on page 688 thereof, to which reference is hereby prayed.

3. Your orator further shows by section 2304 of the said Revised Statutes, contained in the chapter thereof entitled "Homesteads," it was provided "that every private soldier and officer who has served in the Army of the United States during the recent rebellion for ninety days and who was honorably discharged and has remained loyal to the Government, including troops mustered into the service of the United States by virtue of the third section of an act approved February 13, 1862, and every seaman, marine, and officer who has served in the Navy of the United States or in the Marine Corps during the rebellion for ninety days and who was honorably discharged and has remained loyal to the Government, shall, on compliance with the provisions of this chapter, as hereinafter modified, be entitled to enter upon and receive patents for a quantity of public lands not exceeding one hundred and sixty acres, or one quarter section, to be taken in compact form according to legal subdivisions, including the alternate reserve sections of public land along the line of any railroad or other public work not otherwise reserved or appropriated, and other lands subject to entry under the homestead laws of the United States, but such homestead settler shall be allowed six
6 months after locating his homestead and filing his declaratory statement within which to make his entry and commence his settlement and improvement." And that by section 2306 of the said Revised Statutes it was and is provided that "every person entitled under the provisions of section 2304 to enter a homestead, who may have heretofore entered under the homestead laws a quantity of land less than 160 acres shall be permitted to enter so much land as, when added to the quantity previously entered, shall not exceed 160 acres." And that by section 1 of an act of Congress approved August 18, 1894 (28 Stat., 397), it was and is provided "that all soldiers' additional homestead certificates heretofore issued under the rules and regulations of the General Land Office, under section 2306 of the Revised Statutes of the United States, or in pursuance of the decisions or instructions of the Secretary of the Interior of date March 10, 1877, or any subsequent decisions or instructions of the Secretary of the Interior or the Commissioner of the General Land Office shall be and are hereby declared to be valid, nothwithstanding any attempted sale or transfer thereof; and where such certificates had been or may hereafter be sold or transferred such sale or transfer shall not be regarded as invalidating the right, but the same shall be good and valid in the hands of bona fide purchasers for value; and all entries heretofore or hereafter

made with such certificates by such purchasers shall be approved and patent shall issue in the name of the assignees."

4. Your orator shows that by section 2302 of the said Revised Statutes no mineral lands are subject to entry or settlement under the laws last cited, or any other statutes of the United States permitting the entry of public lands as homestead lands, and that by section 2318 of said Revised Statutes it was and is expressly provided that all lands valuable for minerals shall be reserved from such sale, except as otherwise expressly directed by law, and that because of the provisions of the two sections last mentioned, and as well the
7 general policy and legislation of the United States touching homesteads and mineral lands, no part or parcel of the lands hereinbefore described was ever at any time in this bill mentioned or referred to subject to lawful entry, purchase, or acquisition under or by virtue of any of the provisions of the laws relating to additional homestead entries hereinbefore set forth.

5. Your orator further shows that at that time, viz, the last day of January, 1900, the officers, directors, agents, and employees of said defendant well knew the provisions of the statutes, rules, and regulations hereinbefore set forth and referred to, and well knew the character of all and singular said lands hereinbefore described, to and including the smallest legal subdivisions thereof, and that the same were known coal lands in character; and that on or about the date aforesaid, so well knowing, did combine and confederate together particularly with Thomas Sneddon and Daniel F. Harrison, having like knowledge as aforesaid, who at that time were agents and officials of the said defendant company, and with divers other persons at present to your orator unknown, but who when known may be made parties defendant to this bill, to form and did form a certain fraudulent scheme and plan whereby to obtain possession of and title to the hereinbefore-described lands from this complainant and to vest such title in the defendant for its exclusive use, benefit, and ownership in and by evasion and violation of the provisions of said statutes and rules and regulations hereinbefore set forth or mentioned. That such scheme, in substance and effect, was to represent and pretend to the complainant, through its officers and agents to whom the care, management, and disposal of its public lands was by law confided in the administration of the public lands and public-land laws, that the lands hereinbefore described, all of which were then known coal lands, and which said defendant, by and through its officers, agents, and employees and its said confederates, well knew to

be coal lands and chiefly valuable as such, and which
8 they desired to secure title to and possession of solely because they were coal lands, were not in fact coal lands, but were grazing or agricultural lands; and inasmuch as the title of complainant to agricultural or grazing lands could be obtained from it as soldiers' additional homesteads, that they, the said defendant company and its confederates, would obtain assignments of soldiers' additional homestead rights and file the same as claims for said lands; and it was further a part of such scheme and conspiracy that they, the said conspirators, would make and file or cause to be filed an affidavit in case of each and every such assignment of soldiers' additional homestead rights, and upon the entry of each and every tract of land to be claimed by right of assignment as a soldiers' additional homestead by them for said defendant, showing by such affidavit, among other things necessary and required by them to be shown in the premises, that such lands were not mineral in character and were not in fact respectively coal lands, but were agricultural or grazing lands, and subject to entry in their interest as assignees of soldiers' additional homestead rights. That as a part of such scheme, by means of such false and fraudulent affidavits so to be filed or caused to be filed by them, said defendant and its confederates, said officers were to be deceived and mislead, in the discharge of their respective duties concerning said lands, into allowing the same to be entered as agricultural or grazing lands, not knowing them to be coal lands; that the assigned rights of various parties to soldiers' additional homesteads were thus to be applied to said coal lands, and thereby, for the use and benefit of said defendant, patents of complainant conveying the title to and right of possession of such known coal lands were to be procured from complainant in excess of the amount of such lands limited by said coal-land act to any one person or association of persons, and also without the payment therefor of the price, or any portion thereof, fixed by said coal-land act or said rules and regulations thereunder promul-
9 gated.

6. Further complaining, your orator shows that, in pursuance of said fraudulent scheme hereinbefore stated and in the execution thereof and for the sole use and benefit of the said defendant corporation, the said Thomas Sneddon and Daniel F. Harrison, respectively, who were then duly authorized agents of the said defendant, for the purpose of obtaining from complainant all and singular the lands hereinbefore described to enable said defendant to acquire the same, did, as hereinafter to be particularly set forth, obtain assignments of additional homestead rights, under the provisions of the acts

of Congress hereinbefore set forth relative to soldiers' additional homesteads, and applied respectively to the proper land office of complainant having jurisdiction over said lands, to-wit: At the United States land office in Evanston, Wyo., to enter certain tracts of land as additions to said assignor's original homestead in their, the names and persons of said Sneddon and Harrison, but for the use and benefit of said defendant and for the purpose of conveying to the said defendant the lands hereinbefore described when they should respectively obtain the titles to and right of possession of the said lands by complainant's patents issued to them, the said Thomas Sneddon and Daniel F. Harrison, respectively, therefor.

Your orator further shows that each of the tracts of land so applied for as hereinafter shown, and comprising the lands hereinbefore described, was at that time when said applications were made as aforesaid known coal land of great value, as hereinbefore stated, and was known to be such by the said Thomas Sneddon and Daniel F. Harrison, respectively, and by the officers, employees, agents, and officials of said defendant company, and was chiefly valuable as such coal land and was procured solely for the purpose of obtaining title to and possession of said land for defendant because it was coal land.

10 And your orator further shows that for the purpose of deceiving the register and receiver of the said Evanston land office and other officers and officials of complainant connected with the General Land Office of the United States and of the Interior Department of the United States, of which said land offices are a part, the said Thomas Sneddon and Daniel F. Harrison, respectively, did make or cause to be made and file or caused to be filed with the officers of the Evanston land office aforesaid, in the case of each and every entry of lands, comprising the descriptions of lands hereinbefore set forth, a non-mineral affidavit setting forth in substance and effect as follows: That he (the person making such affidavit) is well acquainted with the character of said described lands and with each and every legal subdivision thereof, having frequently passed over the same; that his personal knowledge of said land is such as to enable him to testify understandingly with regard thereto; that there is not to his knowledge within the limits thereof any vein or lode of quartz or other rock in place bearing gold, silver, cinnabar, lead, tin, or copper, or any deposit of coal; that there is not within the limits of said land, to his knowledge, any placer, cement, gravel, or other valuable mineral deposit; that no portion of said land is claimed for mining purposes under the local customs or rules of miners or

otherwise; that no portion of said land is worked for mineral during any part of the year by any person or persons; that said land is essentially non-mineral and is not in any manner occupied adversely to the selector; also that there is not to his knowledge within the limits thereof any salt spring or deposit of salt in any form such as to make it chiefly valuable on account thereof; that no portion of said land is claimed for saline purposes, and that said land is essentially nonsaline land, and that said application therefor is not made for the purpose of obtaining title to mineral lands, but with the object of securing title to said land under provisions of the act of Congress approved, etc. (citing the soldiers' additional
11 homestead act). And your orator further expressly avers and charges that as to so much of said affidavits, respectively, as aver that there was not to affiant's knowledge within the limits of the land described any deposit of coal, and wherein it is stated that the application which had been made to acquire Government title therefor was not made for the purpose of fraudulently obtaining title to mineral lands, but for the object of securing the title of said lands under the provisions of said act if Congress applicable to soldiers' additional homesteads, said affidavit were false and fraudulent, and said Thomas Sneddon and Daniel F. Harrison, respectively, then well knew them, respectively, so to be, but made them for the purpose of deceiving the said officers of complainant, as hereinbefore set forth, as to the character of all and singular said lands, and with the design of defrauding the complainant of said titles and rights for the use, benefit, and profit of defendant.

And your orator avers that the officers of said land office at Evanston and General Land Office at Washington and the Interior Department, charged with such matters as aforesaid, were thereby deceived and misled in the premises and supposed said lands were agricultural or grazing in character, and not coal lands, and therefore subject to entry and sale to said Thomas Sneddon and Daniel F. Harrison, respectively, as bona fide entrymen and assignees of soldiers' additional homestead rights, and did thereupon cause said entries to be passed as regular and lawful entries under said soldiers' additional homestead laws, and issued patents of the complainant to said Thomas Sneddon and Daniel F. Harrison, respectively, for the descriptions of land in each of said entries described and comprising all and singular the lands herein first described.

7. Your orator further shows that the following is a list of entries made in furtherance and execution of such fraudulent scheme; that it contains the names of the soldiers or

widows or representatives of soldiers entitled to addi-
12 tional homestead lands so obtained by said Thomas Sneddon and Daniel F. Harrison, respectively, with the descriptions of the land thereby entered by the said Thomas Sneddon and Daniel F. Harrison, respectively, as assignees, respectively, of said soldiers and widows, or representatives, respectively, as aforesaid; the descriptions of lands obtained by reason of each assignment and entry; the time when each of the final duplicate receiver's receipts was issued and delivered therefor, and the time when patents to the same were issued to said Thomas Sneddon or Daniel F. Harrison, respectively, as entrymen by reason of such assignments.

Entry No. 908: Assignor, John R. Stockman; description of land, west half of the northwest quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, July 15, 1903; date of patent, November 10, 1903.

Entry No. 719; Assignor, Joseph J. Willson; description of land, west half of the southwest quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, November 2, 1900; date of patent, July 9, 1901.

Entry No. 747: Assignor, William E. Swihart; description of land, east half of the southwest quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, January 19, 1901; date of patent, July 9, 1901.

Entry No. 757: Assignor, Thomas Patterson; description of land, north half of the northeast quarter and the northeast quarter of the northwest quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 26, 1901; date of patent, August 29, 1901.

Entry No. 775: Assignor, William Arthurs; description of land, southeast quarter of the northwest quarter and the south half of the northeast quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, May 9, 1901; date of patent, August 29, 1901.

13 Entry No. 776: Assignor, Eugene Stebbins; description of land, north half of the southeast quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, May 9, 1901; date of patent, August 29, 1901.

Entry No. 744: Assignor, Samuel Benjamin; description of land, south half of the southeast quarter of section 18, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, January 1, 1901; date of patent, July 15, 1901.

Entry No. 790: Assignor, George G. Gallaher; description of land, west half of the northwest quarter of section 20, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, July 1, 1901; date of patent, December 17, 1902.

Entry No. 733: Assignor, Frederick Valentine; description of land, west half of the southwest quarter of section 20, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, December 1, 1900; date of patent, July 9, 1901.

Entry No. 746: Assignor, John Fessler; description of land, southeast quarter of the northwest quarter and the northeast quarter of the southwest quarter of section 20, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, January 19, 1901; date of patent July 9, 1901.

Entry No. 754: Assignor, William Peters; description of land, west half of the northwest quarter of section 30, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 4, 1901; date of patent, August 29, 1901.

Entry No. 718: Assignor, Sarah F. Hoover; description of land, east half of the southwest quarter of section 30, township 20 north, range 116 west; assignee, Daniel F. Harrison; date of receiver's receipt, November 2, 1900; date of patent, July 15, 1901.

Entry No. 758: Assignor, John B. F. Havens; description of land, north half of the northeast quarter and the northeast quarter of the northwest quarter of section 30,
14 township 20 north, range 116 west; assignee, Daniel F. Harrison; date of receiver's receipt, February 26, 1901; date of patent, August 29, 1901.

Entry No. 1139: Assignor, Whitley Collyer; description of land, south half of the northeast quarter of section 30, township 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, October 4, 1905; date of patent, June 21, 1906.

Entry No. 755: Assignor, William Vandyke; description of land, north half of the southeast quarter of section 30, town-

ship 20 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 23, 1901; date of patent, December 17, 1901.

Entry No. 1015: Assignor, Elizabeth Metthews; description of land, south half of the southeast quarter of section 30, township 20 north, range 116 west: assignee, Daniel F. Harrison; date of receiver's receipt, November 25, 1904; date of patent, June 30, 1905.

Entry No. 720: Assignor, Hiram Driggs; description of land, north half of the northeast quarter and the northeast quarter of the northwest quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, November 2, 1900; date of patent, July 9, 1901.

Entry No. 756: Assignor, William J. McGuire; description of land, south half of the northeast quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 23, 1901; date of patent, December 17, 1901.

Entry No. 745: Assignor, Lindsey Murdock; description of land, west half of the northwest quarter and the southeast quarter of the northwest quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, January 19, 1901; date of patent, July 15, 1901.

15 Entry No. 748: Assignor, Philo L. Sherman; description of land, north half of the southeast quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, January 29, 1901; date of patent, July 9, 1901.

Entry No. 756: Assignor, William J. McGuire; description of land, southeast quarter of the southeast quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 23, 1901; date of patent, July 9, 1901.

Entry No. 755: Assignor, William Vandyke; description of land, southwest quarter of the southeast quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 23, 1901; date of patent, December 17, 1901.

Entry No.749: Assignor, Nathan B. Lewis; description of land, east half of the southwest quarter of sction 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of

receiver's receipt, January 29, 1901; date of patent, July 9, 1901.

Entry No. 750: Assignor, Daniel Farmington; description or land, west half of the southwest quarter of section 6, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, January 29, 1901; date of patent, July 9, 1901.

Entry No. 753: Assignor, Charles Wilcox; description of land, east half of the northwest quarter of section 18, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, February 4, 1901; date of patent, August 29, 1901.

Entry No.780: Assignor, Amos Worrall; description of land, north half of the southeast quarter of section 18, township 19 north, range 116 west; assignee, Thomas Sneddon; date of receiver's receipt, May 22, 1901; date of patent, August 29, 1901.

Entry No. 751: Assignor Henry Harris; description of land, north half of the northeast quarter of section 12, township 19 north, range 117 west; assignee, Thomas Sneddon; date of receiver's receipt, February 4, 1901; date of patent,
16 August 29, 1901.

Entry No. 715: Assignor, George W. Brown; description of land, south half of the northeast quarter of section 12, township 19 north, range 117 west; assignee, Daniel F. Harrison; date of receiver's receipt, November 2, 1900; date of patent, July 9, 1901.

Entry No. 717: Assignor, Parley Post; description of land, north half of the southeast quarter of section 12, township 19 north, range 117 west; assignee, Daniel F. Harrison; date of receiver's receipt, November 2, 1900; date of patent, July 9, 1901.

Entry No. 760: Assignor, Jacob Deardorff; description of land, south half of the southeast quarter of section 12, township 19 north, range 117 west; assignee, Daniel F. Harrison; date of receiver's receipt, March 20, 1901; date of patent, August 29, 1901.

Entry No. 752: Assignor, Mortimer E. Crandall; description of land, north half of the northwest quarter of section 12, township 19 north, range 117 west; assignee, Thomas Sneddon; date of receiver's receipt, February 4, 1901; date of patent, August 29, 1901.

Entry No. 716: Assignor, John A. Thomas; description of land, south half of the northwest quarter of section 12, town-

ship 19 north, range 117 west; assignee, Daniel F. Harrison; date of receiver's receipt, November 2, 1900; date of patent, July 9, 1901.

Entry No. 886: Assignor, William Cooley; description of land, north half of the southwest quarter of section 12, township 19 north, range 117 west; assignee, Daniel F. Harrison; date of receiver's receipt, April 3, 1902; date of patent, March 1, 1904.

Entry No. 822: Assignor, Andrew M. Allen; description of land, south half of the southwest quarter of section 12, township 19 north, range 117 west; assignee, Daniel F. Harrison; date of receiver's receipt, March 22, 1902; date of patent, February 26, 1902.

8. And your orator is informed and verily believes and therefore charges the fact to be that each and every of
17 the descriptions of lands hereinbefore set forth as having been entered by Thomas Sneddon in the list hereinbefore given was, subsequent to his receiving duplicate receipts for the same, respectively, from the receiver of the United States land office at Evanston, Wyo., as aforesaid, conveyed by him, the said Thomas Sneddon (his wife, Christina Sneddon, joining in the deed of conveyance), to the Diamond Coal and Coke Company, the defendant herein, in furtherance of the said fraudulent scheme, combination, and confederacy hereinbefore set forth, and to the same end, and for the same purpose, and in furtherance of the same scheme, combination, and confederacy, each and every description of land contained in the above list and entered at said land office in the name of Daniel F. Harrison were by proper deeds of conveyance duly granted and conveyed by said Harrison to the said Diamond Coal and Coke Company after the final receipt of the receiver of said land office was delivered to him, the said Daniel F. Harrison, for the parcels and tracts so entered by him, and thus, of record and in fact, the chain of title became complete from complainant to said Diamond Coal and Coke Company of all and singular the lands hereinbefore mentioned and described. And you orator avers that he is informed and believes and therefore charges the fact to be that the consideration named in said deeds of Sneddon and wife and Harrison, respectively, to the defendant herein, were purely nominal and that said defendant was not a purchaser of said lands in good faith for valid consideration, but in truth and in fact received the same with full and complete notice both that they were coal lands in character, and were entered in fraud and violation of the laws of the United States against the legal and equitable rights of your complainant, by means of the various frauds and fraudulent practices hereinbefore set forth without consideration to the

complainant therefor, and for defendant's own use, benefit, and ownership, and by defendant's own fraudulent procurement, and at defendant's own expense.

18 9. And your orator further shows that the defendant is a corporation, organized and existing under the laws of the State of Utah, and a citizen of said State, but that its principal business and operations, as well as the lands hereinbefore described, and its principal offices for the transaction of the business of mining, producing, and selling coal, are located within the State of Wyoming, and within the district thereof and within the jurisdiction of this honorable court.

10. And your orator further shows that the defendant company herein named is and has been for many years past engaged in the mining, production, and sale of coal in the county of Uinta, State and district of Wyoming aforesaid; that its said operations have been principally carried on in the immediate vicinity of the lands herein involved; that for such purpose it has erected buildings, constructed railroad trackage, driven tunnels, sunk shafts, installed machinery and appliances of various kinds adapted to such purposes in and around said mines, and has employed large numbers of men in its service in such connection; that your orator is not advised as to whether any of the lands hereinbefore described and herein involved are actually being mined for the coal therein contained, but inasmuch as all and singular the said lands are geographically intermingled with other lands owned and actually operated by said defendant, your orator avers that he is justly apprehensive that the same, which in equity belong to complainant, may have been or may be so mined and operated in and upon by defendant to the great and irreparable injury of complainant before the complainant may have fully recovered its title to and possession of the same from defendant unless by a proper order of this court in the premises defendant is restrained pending this suit, and your orator further shows that if it shall appear that coal has been so mined, produced, and disposed of by defendant during its possession and occupancy of said lands, your orator is justly entitled in equity to an account of the coal produced, used, or sold by said company

19 therefrom as appertaining to and growing out of the complainant's equitable ownership of said lands, and that defendant ought in equity to be compelled, under the proper order and direction of this court, to account to complainant for the same and should be required to pay complainant for whatever coal may have been taken from said land a reasonable price therefor.

All of which actions, doings, and pretenses of the said defendant, and its confederates are contrary to equity and good conscience and tend to the manifest injury and oppression of the complainant in the premises. Wherefore, for as much as the complainant is remediless in the premises, according to the strict rules of the common law, and can only have relief in a court of equity where matters of this nature are properly cognizable and relievable.

To the end, therefore, that the said defendant, The Diamond Coal and Coke Company, may full, true, direct, and perfect answer make to all and singular the matters hereinbefore stated and charged, but not on oath (its answer on oath being hereby expressly waived), as fully and particularly as if the same were hereinafter repeated and it thereunto distinctly interrogated; and that the said patents so issued by complainant to the said Thomas Sneddon and the said Daniel F. Harrison, respectively, as hereinbefore stated and charged, may be revoked, canceled, and held for naught; and that the said deeds of conveyance from the said Thomas Sneddon and wife and the said Daniel F. Harrison, respectively, to the defendant herein be, by the decree of this honorable court, treated as liens and clouds upon the title of the complainant to all and singular the lands hereinbefore described and the same removed as such; and that all and singular of the said lands mentioned and involved herein may be decreed to be the property of the complainant herein; and that the titles of the same may be restored and the right of possession given to the complainant; that an account may be taken of any coal which may have been mined, produced, or sold from said land by said defendant, or under its permission or authority, and defendant required to pay complainant therefor; that defendant, its officers, agents, contractors, servants, or employees may be restrained by order or injunction of the court from operating upon or within, all and singular, the lands hereinbefore described, and from mining, producing, or selling coal or other valuable material therefrom; and from in any wise encumbering or disposing of all and singular said lands during the pendency of this suit; and that your orator have such other and further relief in the premises as may seem meet and proper to this honorable court, and as shall be agreeable to equity and good conscience.

And your orator prays that your honors may grant unto complainant a writ of subpoena of the United States of America issued out of and under the seal of this honorable court, directed to the said defendant, The Diamond Coal and Coke Company, therein and thereby commanding the said Diamond Coal and Coke Company at a certain time and under a certain pen-

alty therein named, personally to be and appear before this honorable court, then and there to answer all and singular the matters hereinbefore stated, and to stand to and abide by the rules and decrees of this honorable court as to it seems equitable and just in the premises; and your orator will ever pray.

CHARLES J. BONAPARTE,
Attorney-General of the United States.
HENRY M. HOYT,
Solicitor-General of the United States.
TIMOTHY F. BURKE,
United States Attorney for Wyoming

S. R. RUSH,
M. C. BURCH,
ERNEST KNAEBEL,
Of Counsel for Complainant.

21 Endorsements: No. 333. In the U. S. Circuit Court, District of Wyoming. The United States of America, Plaintiff, vs. The Diamond Coal and Coke Company, a Corporation, Defendant. Bill of Complaint. Filed Jun. 12, 1907. Louis Kirk, Clerk. Timothy F. Burke, United States Attorney, District of Wyoming.

22 Subpoena:

The United States of America.

United States of America,
District of Wyoming—ss.

The President of the United States of America: To The Diamond Coal and Coke Company, a corporation—Greeting:

You and every of you are hereby Commanded, That you appear before the Judges of the Circuit Court of the United States of America, for the District of Wyoming, at the City of Cheyenne, in said District, on the first Monday in August next, (it being the 5th day of August, A. D. 1907) to answer the Bill of Complaint of The United States of America, this day filed in the office of the Clerk of said Court, in said City of Cheyenne, then and there to receive and abide by such judgment and decree as shall then or thereafter [he] had upon said Bill of Complaint, upon pain of judgment being pronounced against you by default, and a decree had and entered accordingly.

To the Marshal of the District of Wyoming to execute, and make due return.

Witness, The Honorable Melville W. Fuller, Chief Justice of the Supreme Court of the United States of America, and the seal of the said Circuit Court, at the City of Cheyenne aforesaid, this twelfth day of June in the year of our Lord one thousand nine hundred and seven, and of the Independence of the United States the 131st year.

(Seal) LOUIS KIRK, Clerk.

Memorandum.

The above named defendant is hereby notified that unless it and each of them shall enter its appearance in the office of the Clerk of said Court, at the City of Cheyenne afore-
23 said, on or before the day to which the above writ is returnable, the complainant's bill will be taken against it as confessed, and a decree entered accordingly.

LOUIS KIRK, Clerk.

Marshal's Return.

United States of America,
District of Wyoming—ss.

Cheyenne, Wyo., Jun. 27, 1907.

I have duly executed the within writ, by delivering to Thomas Sneddon, Superintendent of The Diamond Coal and Coke Company, a Corporation, personally, a true copy of the within writ, at Diamondville, Uinta County, Wyoming, on the 26th day of June, 1907, he being one of the chief officers of said Company.

L. G. DAVIS, Marshal,
By L. E. Snow, Deputy Marshal.

Marshal's Fees.

Service, 1 Person,	$ 4.00
Mileage, 377 Miles,	$45.24
Total,	$49.24

Endorsements: Marshal's No. 288. No. 333. Circuit Court of the United States, For the District of Wyoming. In Chancery. The United States of America, Plaintiff, vs. The Diamond Coal and Coke Company, a corporation, Defendant. Subpoena. Returnable to rule day, first Monday in August, A. D. 1907. Louis Kirk, Clerk. Filed this 27th day of June, A. D. 1907. By Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy, Timothy F. Burke, of Compl't's Sol'r.

24 The Circuit Court of the United States for the District of Wyoming.

The United States of America, Plaintiff,
vs. In Equity.
The Diamond Coal and Coke Company, a Corporation, Defendant.

General Appearance.

Comes now B. M. Ausherman, attorney for The Diamond Coal & Coke Company, a Corporation, the defendant above named, and enters appearance generally for the defendant to answer to the Bill of Complaint filed in the above entitled action.

B. M. AUSHERMAN,
Attorney for Defendant.

Endorsements: No. 333. Circuit Court of the United States for the District of Wyoming. In Chancery. The United States of America, Plaintiff, vs. The Diamond Coal & Coke Co., A Corporation, Defendant. Appearance of Defendant. Filed Aug. 2, 1907. Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy.

25 In the Circuit Court of the United States, Eighth Circuit, District of Wyoming.

United States of America, Complainant,
vs. In Equity.
Diamond Coal & Coke Company, a corporation, Defendant.

Answer to the Bill of Complaint.

This defendant now, and at all times hereinafter, saving to itself all, and all manner of, benefit of exception, or otherwise, that can or may be had to the many errors, uncertainties and imperfections in the said bill contained, for answer thereto, or to so much thereof as this defendant is advised it is material or necessary for it to make answer to, answering says:

Admits that on the 1st day of January, 1900, complainant was the owner in fee of the following described tracts of land situated in the County of Uinta, in the State of Wyoming, namely:

The west half of the northwest quarter, the west half of the southwest quarter, the east half of the southwest quarter, the north half of the northeast quarter, the northeast quarter of the northwest quarter, the south half of the northeast quarter, the southeast quarter of the northwest quarter, the north half of the southeast quarter, and the south half of the

southeast quarter, all in section eighteen; the west half of the northwest quarter, the west half of the southwest quarter, the southeast quarter of the northwest quarter, and the northeast quarter of the southwest quarter, all in section twenty; the west half of the northwest quarter, the east half of the southwest quarter, the north half of the northeast quarter, the northeast quarter of the northwest quarter, the south half of the northeast quarter, the north half of the southeast quarter, and the south half of the southeast quarter, in section thirty, all in town twenty north, range one hundred and sixteen west; also the north half of the northeast quarter, the northeast quarter of the northwest quarter, the south half of the northeast quarter, the southeast quarter of the northwest quarter,
the west half of the northwest quarter,the north half of
26 the southeast quarter, the southeast quarter of the
southeast quarter, the southwest quarter of the southeast quarter, the east half of the southwest quarter, the west half of the southwest quarter, all in section six; also the east half of the northwest quarter, the north half of the southeast quarter, in section eighteen, all in town nineteen north, range one hundred and sixteen west; also the north half of the northeast quarter, the south half of the northeast quarter, the north half of the southeast quarter, the south half of the southeast quarter, the north half of the northwest quarter, the south half of the northwest quarter, the north half of the southwest quarter, and the south half of the southwest quarter, in section twelve, all in town nineteen north, range one hundred and seventeen west.

Admits that all of said lands were at that time vacant, unreserved and unappropriated; but denies that the same were rough and broken in character, and that the same were unfitted for agricultural purposes, and of slight, if any, utility for grazing; and avers on the contrary, that the said lands were well adapted for agricultural and grazing purposes.

Denies that said lands, or any of the said lands, were then known coal lands, or that the same were chiefly valuable as such, or that the same were worth the value of one million dollars, or upwards; and avers that said lands were not known coal lands, and were valuable only as lands fitted for agricultural or grazing purposes, and that said lands at said time had no other value than for the purposes herein specified.

2. Denies that the only manner in which said lands could be legally entered and purchased from complainant was through compliance with an Act of Congress entitled "An Act to provide for the sale of the lands of the United States containing coal", which Act was approved March 3, 1873, and

which said act is in part quoted in paragraph 2 of said complaint; but avers, on the contrary, that said lands, and each and every part thereof, could legally be entered and purchased from the complainant under the provisions of Sections 2304 and 2306 of the Revised Statutes of the United States, and under the provisions of Section 1 of an Act of Congress approved August 18, 1894, (28 Statutes at Large, 397),
27 as well as under all other provisions of the United States Statutes providing for the acquisition of title from the complainant by virtue of homestead or preemption entries.

Defendant admits that the Commissioner of the General Land Office, as authorized by the Act of Congress known as "An Act to provide for the sale of the lands of the United States containing coal", which Act was approved March 3, 1873, issued certain rules and regulations whereby to carry into effect its provisions, and that these rules and regulations were duly promulgated throughout the United States; and that said rules and regulations are set forth, as is alleged, in Volume 1 of the Decisions of the Department of the Interior relating to public lands, beginning on page 688 thereof, to which reference is hereby made.

3. Defendant admits that by Section 2304 of the Revised Statutes, contained in the chapter thereof entitled "Homesteads" it was provided "that every private soldier and officer who has served in the Army of the United States during the recent rebellion for ninety days, and who was honorably discharged and has remained loyal to the Government, including the troops mustered into the service of the United States by virtue of the third section of an Act approved February 13, 1862, and every seaman, marine and officer who has served in the Navy of the United States or in the Marine Corps during the rebellion for ninety days, and who was honorably discharged, and has remained loyal to the Government, shall, on compliance with the provisions of this chapter, as hereinafter modified, be entitled to enter upon and receive patents for a quantity of public lands not exceeding one hundred and sixty acres, or one-quarter section, to be taken in compact form according to legal subdivisions, including the alternate reserve sections of public land along the line of any railroad or other
public work not otherwise reserved or appropriated,
28 and other lands subject to entry under the homestead laws of the United States, but such homestead settler shall be allowed six months after locating his homestead and filing his declaratory statement within which to make his entry and commence his settlement and improvement".

And further admits that by section 2306 of the said Revised Statutes, it was and is provided that "every person entitled under the provisions of Section 2304 to enter a homestead, who may have heretofore entered under the homestead laws a quantity of land less than one hundred and sixty acres, shall be permitted to enter so much land as, when added to the quantity previously entered, shall not exceed one hundred and sixty acres."

And further admits that by Section 1 of an Act of Congress approved August 18, 1894, (28 Statutes, 397), it was and is provided "that all soldiers' additional homestead certificates heretofore issued under the rules and regulations of the General Land Office, under Section 2306 of the Revised Statutes of the United States, or in pursuance of the decisions or instructions of the Secretary of the Interior of date of March 10, 1887, or any subsequent decisions or instructions of the Secretary of the Interior, or the Commissioner of the General Land Office, shall be and are hereby declared to be valid, notwithstanding any attempted sale or transfer thereof; and where such certificates had been or may hereafter be sold or transferred, such sale or transfer shall not be regarded as invalidating the right but the same shall be good and valid in the hands of bona fide purchasers for value; and all entries heretofore or hereafter made with such certificates by such purchasers shall be approved and patent shall issue in the name of the assignees."

4. Defendant admits that by section 2302 of the said Revised Statutes, no known mineral lands are subject to entry or settlement under the laws last cited in the bill of complaint of plaintiff, and admitted in this answer, or any other
29 Statutes of the United States permitting the entry of public lands as homestead lands; and admits that by Section 2318 of said Revised Statutes, it was and is expressly provided that all lands valuable for mineral shall be reserved from such sale, except as otherwise expressly directed by law; but defendant denies that because of the provisions of the said Sections last mentioned, or any other statute or enactment, rule or regulation, or the general policy or legislation of the United States touching homesteads and mineral lands, no part or parcel of the lands described in the bill of complaint was at any time mentioned in the bill subject to lawful entry, purchase, or acquisition, under or by virtue of any of the provisions of the laws relating to additional homestead entries hereinbefore set forth; and, on the contrary, the defendant avers that at the time when the predecessors in interest of this defendant entered the lands described in the said bill of complaint, none of said lands were known to be valuable either as

mineral lands or on account of coal deposits contained therein; and further avers that the only known value of said lands were for agricultural and grazing purposes; and that because of said fact the said lands were at the time when the defendant's predecessors entered into and upon said lands, and at all times mentioned in the bill of complaint, subject to entry under the homestead laws of the United States, and particularly under the provisions of the homestead laws relating to the acquisition of title from the United States Government by soldiers' additional homestead entries, as is set forth in said bill of complaint, and as the said law is admitted to be in this answer.

5. Defendant admits that on the 1st day of January, 1900, the officers, directors, agents and employees of said defendant, either knew, or are presumed to have known, the provisions of the Statutes, rules and regulations set forth and referred to in said bill of complaint; defendant denies, however, that its officers, directors, agents or employees knew the character of all or any portion of the lands described in said bill of complaint to have been known coal lands in character; and denies that said alleged coal lands were, at the time mentioned in said bill of complaint, or at any time mentioned therein, known coal lands within the meaning, intent and provisions of the said Act of Congress entitled "An Act to provide for the sale of the lands of the United States containing coal", which Act was approved March 3, 1873, and is quoted in said bill of complaint upon pages 2 and 3 thereof; but avers on the contrary, that said lands were not coal lands within the meaning and provisions of said law.

Denies that on the 1st day of January, A. D. 1900, or at any other time or at all, the defendant did combine or confederate with Thomas Sneddon and Daniel F. Harrison, or any other persons, or at all, for the purpose of forming or entering into any fraudulent scheme or plan whereby to obtain possession of, or title to, the lands above described, from the complainant herein, or to vest such title in the defendant for its exclusive use, benefit or ownership in or by evasion or violation of the provisions of the Statutes referred to in the said bill of complaint and in this answer, or the rules or regulations set forth and mentioned in said bill of complaint; and defendant denies that at any time, or at all, it ever entered into any confederacy or fraudulent combination or conspiracy with the said Thomas Sneddon or the said Daniel F. Harrison, for any such purpose, or at all.

Denies that defendant, or any of said persons mentioned in said bill of complaint, ever did enter into any scheme which was in substance or effect to represent or pretend to the com-

plainant, through its officers or agents, or any other person, to whom the care, management and disposal of its public lands were confided in the administration of the public lands
31 and public land laws, that the lands hereinbefore described, which it is alleged in said bill of complaint were known coal lands, and of which fact it is alleged the officers, agents and employees and the alleged confederates of this defendant had knowledge were not in fact coal lands, or were grazing or agricultural lands, and denies that any such scheme, confederacy or conspiracy ever in fact existed.

Denies that inasmuch as the title of complainant to agricultural or grazing lands could be obtained from it as soldiers' additiona lhomesteads, this defendant, or its alleged confederates, or any other person whomsoever, ever combined, confederated or conspired together, or ever agreed that they, or any of said persons, would obtain assignments of soldiers' additional homestead rights, or file the same as claims for said lands; and denies that it was further a part of said alleged scheme and conspiracy, that the defendant and its alleged coconspirators would make or file, or cause to be filed, an affidavit, or any affidavit, in any case designated in said bill of complaint, or upon the entry of each and every tract, or any tract designated in said bill of complaint, showing by any such affidavit, among other things necessary and required by them to be shown in the premises, that such lands were not mineral in character and were not in fact respectively coal lands, but were agricultural or grazing lands, and subject to entry in their interest as assignees of soldiers' additional homestead rights.

Denies that it was a part of any scheme in which defendant entered, or any other persons, by means of any false or fraudulent affidavits which were to be filed, or caused to be filed, to mislead or deceive the officers of complainant in the discharge of their respective duties concerning said lands, into allowing the same to be entered as agricultural or grazing lands; denies that the assigned rights of various parties to soldiers' additional homesteads were thus to be applied to said alleged coal lands, or to any coal lands, and thereby, for the
32 use and benefit of said defendant, patents of complainant conveying the title to and right of possession of such alleged known coal lands were to be procured from complainant in excess of the amount of such lands limited by said coal land act to any person or association of persons; and denies that it was any part of any scheme entered into by defendant, without the payment therefor of the price, or any portion thereof, fixed by said coal land act or said rules and regulations thereunder promulgated, to fraudulently obtain

patent or title to any lands subject to entry under said coal land act; and denies that any such fraudulent confederacy, conspiracy or plan ever in fact existed.

6. Defendant further denies that in pursuance of any such fraudulent scheme, or in the execution thereof, or for the use or benefit of this defendant, the said Thomas Sneddon and Daniel F. Harrison respectively, or either of them, for the purpose of obtaining from complainant all and singular the lands, or any portion thereof, hereinbefore described, or to enable said defendant to acquire the same, or obtain assignments of additional homestead rights under the provisions of the Act of Congress hereinbefore set forth relative to soldiers' additional homesteads, or that in pursuance of any such scheme, plan or confederacy as is alleged, the said persons, or either of them, ever applied respectively or at all, to the proper land office of the complainant having jurisdiction over said lands, to-wit, the United States Land Office at Evanston, Wyoming, to enter tracts of land as additions to said assignors' original homestead in the names and persons of said Sneddon and said Harrison or for the use and benefit of said defendant; or for the purpose of conveying to said defendant the lands hereinbefore described when they should respectively obtain the titles to, or right of possession of said lands by complainants' patents issued to the said Thomas Sneddon and Daniel F. Harrison respectively therefor. Defendant admits,
33 however, that said Sneddon and said Harrison did respectively make entries under the said laws set forth in said bill of complaint relative to soldiers' additional homesteads, and did apply respectively to the proper land office of the complainant having jurisdiction over said land, to-wit, at the United States Land Office at Evanston, Wyoming, to enter certain tracts of land described in said bill of complaint as additions to said assignors' original homestead rights, as said Sneddon and Harrison had good and lawful right so to do, as will be hereinafter more specifically set forth.

Defendant denies that each and all, or any, of the said tracts of land so applied for as set forth in said bill of complaint, were at that time, or at any time mentioned in the said bill of complaint, known coal lands of great, or any, value, except as is in this answer hereinbefore stated; and denies that it was known that said lands, or any part of said lands, were known to be coal lands by the said Thomas Sneddon and the said Daniel F. Harrison respectively, or by the officers, employees, agents or officials of this defendant, or that the same was chiefly valuable as such coal lands, or that title to the said lands, or any part thereof, was procured solely, or at all, for

the purpose of obtaining title to, and possession of said land for defendant because it was coal land; but defendant expressly denies that such land, or any portion thereof was or is coal land within the meaning of the law of the United States entitled "An Act to provide for the sale of the lands of the United States containing coal", which Act was approved March 3, 1873.

Defendant denies that for the purpose of deceiving the register and receiver of the said Evanston Land Office, or either of said officers, or any other officer or official of the complainant connected with the General Land Office of the United States and of the Interior Department of the United States, or any other officer or person at all, the said Thomas Sneddon and the said Daniel F. Harrison respectively did make,
34 or cause to be made or filed, or caused to be filed, with the officers of the Evanston Land Office aforesaid, in the case of each and every, or any, entry of lands comprising the descriptions of lands set forth in said bill of complaint, a non-mineral affidavit setting forth in substance and effect that he (the person making such affidavit) was well acquainted with the character of said described land, and with each and every legal subdivision thereof, having frequently passed over the same; that his personal knowledge of said land was such as to enable him to testify understandingly with regard thereto; that there was not to his knowledge within the limits thereof any vein or lode of quartz, or other rock in place, bearing gold, silver, cinnabar, lead, tin or copper, or any deposit of coal; or that there was not within the limits of said land to his knowledge any placer, cement, gravel or other valuable mineral deposit; that no portion of said land was claimed for mining purposes under the local customs or rules of miners, or otherwise; that no portion of said lands was worked for mineral during any portion of the year by any person or persons; that said land was essentially non mineral, and was not in any manner occupied adversely to the selector; also that there was not to his knowledge within the limits thereof any salt spring or deposits of salt in any form such as to make it chiefly valuable on account thereof; that no portion of said land was claimed for saline purposes, and that said land was essentially nonsaline land, and that said application therefor was not made for the purpose of obtaining title to mineral lands, but with the object of securing title to said lands under the provisions of the act of Congress approved, etc. (citing the soldiers' additional homestead act). But, on the contrary, the defendant avers that in each and every case where the said Sneddon or the said Harrison made such an affidavit as is hereinbefore set forth, said Sneddon, or said Harrison, as the

case may be, made said affidavit in good faith, and with
35 the honest and lawful purpose of obtaining title to the land described in said affidavit, in accordance with the facts as they exist, and for the purposes therein specified.

And defendant denies that the said affidavits respectively, or so much of said affidavits as aver that there was not to affiant's knowledge within the limits of the land described in said bill of complaint, any deposit of coal, or wherein it was stated in said affidavit that the applications which had been made to acquire Government title therefor, was not made for the purpose of fraudulently obtaining title to mineral lands, but for the object of securing the title to said lands under the provisions of the said Act of Congress applicable to soldiers' additional homesteads, were false and fraudulent, or that the said Thomas Sneddon and Daniel F. Harrison respectively then well knew them respectively, so to be; or that the said affidavits were made for the purpose of deceiving the said officers of complainant, as hereinbefore set forth, or at all, as to the character of all and singular, or any part of, the said lands, or with the design of defrauding the complainant of said titles and rights for the use, benefit and profit of defendant; but, on the contrary, as has been fully set forth, defendant avers that the aforesaid affidavits, and each of said affidavits as made by the persons respectively who made said affidavit, was made in good faith, for the purposes hereinbefore set forth.

Defendant denies that the officers of the said land office at Evanston, Wyoming, and the General Land Office at Washington, and the Interior Department, charged with such matters as aforesaid, or any other officers, were deceived or mislead in the premises, or that the character, and purposes for which said lands were best suited, was misrepresented to the said officers; and denies that the entry and sale to said Thomas Sneddon and Daniel F. Harrison respectively of the lands described in the said bill of complaint and herein, or any
36 part or portion of said lands, were falsely or fraudulently obtained; but avers on the contrary, that said lands were subject to entry and sale to said Thomas Sneddon and Daniel F. Harrison respectively, as boni fide entrymen and assignees of soldiers' additional homestead rights, and that the action of said officials in causing said entries to be passed as regular and lawful entries under said soldiers' additional homestead laws, and the issuance of the patents of the complainant to the said Thomas Sneddon and the said Daniel F. Harrison respectively for the descriptions of the lands of each of said descriptions set forth in said bill of complaint and herein, was in all respects due and regular, and in conformity with the provi-

sions of the law of the United States Government for the sale and disposition of its public lands, and conferred upon the said Thomas Sneddon and the said Daniel F. Harrison respectively, good, valid and indisputable titles to the said lands, and that the defendant has by mesne conveyance from the said Thomas Sneddon and Daniel F. Harrison succeeded to all the right, title and interest of said Sneddon and said Harrison, and of said complainant, in and to the said lands, and is now the owner in fee, and entitled to the possession, use and benefit of all the said lands described in said bill of complaint.

Defendant admits that the list of entries contained in paragraph 7 of said bill of complaint is true and correct, and that said entries contain the names of the soldiers or widows or representatives of soldiers entitled to the additional lands obtained by Thomas Sneddon and Daniel F. Harrison, respectively, with the descriptions of the lands thereby entered by said Thomas Sneddon and said Daniel F. Harrison, respectively, as assignees respectively of said soldiers or widows or representatives respectively, as aforesaid; and that the descriptions of lands contained by reason of each assignment and entry, the time when each final duplicate receipt was issued and delivered therefor, and the time when patents
37 to the same were issued to said Thomas Sneddon or Daniel F. Harrison, respectively, as entrymen by reason of such assignments, is correctly set forth in said paragraph; but denies that said entries, or any entry mentioned or described in said paragraph 7 was ever made in furtherance or in execution of any fraudulent scheme, combination, confederacy or plan, but alleges on the contrary, that the said entries were made in good faith by said respective persons, as hereinbefore has been fully alleged.

Defendant admits that each and every of the descriptions of land set forth in paragraph 7 of said complaint as having been entered by Thomas Sneddon in the list therein given, was subsequent to his receiving the duplicate receipts for the same respectively from the Receiver of the United States Land Office at Evanston, Wyoming, conveyed by him, the said Thomas Sneddon (his wife, Christina, signing and joining in the deed of conveyance) to this defendant herein; but denies that such conveyance was made in furtherance of any fraudulent scheme, combination or confederacy, as is alleged in said bill of complaint, or to the end or for the purpose of any scheme, combination or confederacy upon the complainant herein, or any officer or agent of said complainant, or any other person whomsoever.

Admits that each and every description of lands contained in the above named list of entries at said land office in the name of Daniel F. Harrison, were by proper deeds of conveyance duly granted and conveyed by said Harrison to this defendant, after the final receipts of the Receiver of said Land Office were delivered to the said Daniel F. Harrison for the parcel or tracts entered by him and enumerated in the list of entries contained in paragraph 7 of said bill of complaint; but denies that said conveyances, or any of said conveyances, so made as aforesaid by said Harrison to this defendant, were made in pursuance of, or in furtherance of any illegal or fraudulent scheme, combination or confederacy.

Defendant further admits that the chain of title became complete from the complainant to this defendant, and
38 that this defendant is now the owner, and entitled to the possession of all and every part of the lands and premises described in said bill of complaint.

Defendant denies that the said conveyances so made as aforesaid, from said Sneddon and wife and said Harrison, respectively, to the defendant herein, were made upon a nominal consideration; and denies that said defendant was not a purchaser of said lands in good faith, for a valid consideration; and denies that the said defendant had any knowledge or notice that said lands, or any of said lands, were entered in fraud or violation of the laws of the United States against the legal or equitable rights of complainant by means of any of the frauds or fraudulent practices alleged in the complaint of plaintiff; but defendant avers on the contrary, that it became the owner of said lands, and each and every part of said lands, by conveyances from said Harrison and said Sneddon, in good faith, and upon the payment of good, valuable and sufficient considerations moving from said defendant to said Sneddon and said Harrison respectively, and without any notice or knowledge that any fraud has been practiced upon complainant or its officers or agents; and the defendant denies that any such fraud as is alleged in such bill of complaint, or any fraud whatsoever, was in fact practiced upon said complainant in the premises; and defendant further denies that any of such lands were obtained by means of any fraudulent practices upon the part of its predecessors in interest, and avers that its title to all of said lands is a good and valid title; and defendant further denies that it, or its predecessors in interest, or any predecessors in interest, ever had any notice or knowledge that said lands, or any part of said lands, were coal lands, and denies that said lands, or any part thereof, are coal lands.

9. Defendant admits that it is a corporation organized and existing under the laws of the State of Utah, and is a citizen of said State. Defendant further admits that its principal business and operations, as well as the lands described in said bill of complaint, and its principal office for the transaction of business of mining, producing and selling coal, are
39 located within the State of Wyoming.

10. Defendant further admits that it is now, and has been for many years past, engaged in the mining, production and sale of coal in the County of Uinta, and State and District of Wyoming aforesaid; that its said operations have been principally carried on in the vicinity, but not in the immediate vicinity, of the lands described in the said bill of complaint.

Defendant further admits that for the purpose of carrying on its mining operations it has erected buildings, constructed railroad trackage, driven tunnels, sunk shafts, installed machinery and appliances of various kinds adapted to its purpose of mining in and about said mines, and has employed large numbers of men in its service in such connection.

Defendant denies that any of the lands described in said bill of complaint have been entered upon or are being mined for the coal therein contained; and defendant denies that said lands are so geographically situated or intermingled with other lands owned by the defendant that said lands have been entered into by any mine, mining work, drifts or tunnels of any kind owned or operated by or under the control of the said defendant.

Defendant denies that it is necessary to restrain the defendant, pending this suit, from mining said ground; denies that any coal has been mined, produced or disposed of by the defendant from beneath any portion of the lands in controversy, and denies that any accounting is necessary to the complainant.

11. This defendant denies all, and all manner of unlawful combination or confederacy wherewith it is by the said bill charged, without this that there is any other matter, cause or thing in said complainant's bill of complaint contained, material or necessary for this defendant to make answer
40 unto, and not herein or hereby well and sufficiently answered, confessed, traversed and avoided or denied, is true to the knowledge or belief of this defendant; all of which matters and things this defendant is ready and willing to aver, maintain and prove, as this Honorable Court shall direct; and humbly prays to be hence dismissed with its reasonable costs and charges in this behalf most wrongfully

sustained; and for such other and further relief as to this Honorable Court may be deemed just and equitable in the premises.

(Seal) DIAMOND COAL & COKE COMPANY,
By B. B. Thayer, Its Vice President.

Attest:
D. Gay Stivers,
Its Secretary.
Defendant.

B. M. AUSHERMAN, A. J. SHORES, C. F. KELLEY & D. GAY STIVERS,
Solicitors and Attorneys for the Defendant.

Service of the foregoing answer admitted, and copy received, this 12th day of August, A. D. 1907.

TIMOTHY F. BURKE,
Solicitor and Attorney for the Complainant.

41 Endorsements: No. 333. Circuit Court of the United States, ... Circuit, District of Wyoming. United States of America, Complainant, vs. Diamond Coal & Coke Company, a corporation, Defendant. Answer to the Bill of Complaint. Filed Aug. 12, 1907. Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy. B. M. Ausherman, A. J. Shores, C. F. Kelley and D. Gay Stivers, Attorneys for Defendant.

Replication to Answer.

42 The Circuit Court of the United States for the District of Wyoming.

United States of America, Complainant,
vs. In Equity.
Diamond Coal & Coke Company, a corporation, Defendant.

Replication to Answer.

Comes now The United States of America, by Timothy F. Burke, United States Attorney for the District of Wyoming, and acting upon the express instructions of Charles J. Bonaparte, Attorney-General of the United States, in this behalf given for replication to the answer of the defendant as made and filed in the above entitled case, saving and reserving to itself all and all manner of advantages of exception which may be had and taken to the manifold errors, uncertainties and insufficiencies of the answer of the defendant, The Diamond Coal & Coke Company, a corporation, saith, that it doth and will aver, maintain, and prove its said bill to be true, certain, and sufficient in the law to be answered unto by said defend-

ant, and that the answer of the said defendant is very uncertain, evasive and insufficient in law to be replied unto by the replicant; without that, that any other matter or thing in the said answer contained, material or effectual in the law to be replied unto, and not herein or hereby well and sufficiently replied unto, confessed or avoided, traversed, or denied, is true; all which matters and things this replicant is ready to aver, maintain and prove as this honorable Court shall direct and humbly prays as in and by its said bill it hath already prayed.

TIMOTHY F. BURKE,
United States Attorney for Wyoming.

43 Endorsements: No. 333. Circuit Court of the United States for the District of Wyoming. United States of America, Complainant, vs. Diamond Coal & Coke Company, a corporation, Defendant. Replication to Answer. Filed Aug. 26, 1907. Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy.

44 Monday, November 11, 1907.

The United States of America, Plaintiff,
No. 333. vs.
The Diamond Coal & Coke Company, a corporation, Defendant.

It is ordered by the court that this case be and the same is hereby set down for hearing on December 3rd, A. D. 1907, at ten o'clock in the forenoon.

45 In the Circuit Court of the United States for the Eighth Judicial Circuit, District of Wyoming.

United States of America, Plaintiff,
No. 333. vs.
The Diamond Coal and Coke Company, a Corporation, Defendant.

Order.

This cause coming on to be heard upon the application of the complainant for reference thereof, and it appearing to the Court that a reference of said cause should be had for the taking of proofs touching the matter at issue.

It is hereby Ordered that this cause be, and the same is hereby, referred to Clyde M. Watts, Esq., as Special Master of this Court, and he is hereby made a Master in said cause and directed to take the proofs on all and singular the issues herein, as follows: as offered by the complainant within ninety days

from this date, and by the respondent within thirty days thereafter, and by the complainant in rebuttal within fifteen days thereafter; and to thereafter, on or before the 11th day of May, A. D. 1908, report said evidence so taken by him into the Court, without findings on his part. And he is hereby authorized and empowered to discharge his duties as such Master at any convenient place within or without this District, as he may be advised.

Dated this 15th day of November, A. D. 1907.

JOHN A. RINER,
Judge.

46 Endorsements: No. 333. In the U. S. Circuit Court, District of Wyoming. United States of [Wyoming], Plaintiff, vs. The Diamond Coal and Coke Company, a corporation, Defendant. Order of Reference. Filed Nov. 15, 1907. Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy.

47 In the Circuit Court of the United States for the Eighth Judicial Circuit, District of Wyoming.

United States of America, Plaintiff,
No. 333. vs.
The Diamond Coal and Coke Company, a Corporation, Defendant.

Motion.

Now comes Timothy F. Burke, United States Attorney for the District of Wyoming, and shows to the Court:

That the above entitled case, being at issue, was on the 15th day of November, A. D. 1907, referred to the Honorable Clyde M. Watts as Special Master to take and report the testimony the Court fixing ninety days from that date within which the complainant should take its testimony in chief, and thirty days thereafter for the defendant to take its testimony;

That at said time this Court was in session, having both a large criminal and civil docket to be tried, in which the District Attorney appeared in many cases for the Government and was obliged to be present; and likewise the Special Master was engaged as County and Prosecuting Attorney for the County of Laramie, State of Wyoming, with the trial of a term docket in which there were many cases for disposition; so that it was impossible to arrange a date to commence the taking of the testimony earlier than the week of January 19, A. D. 1908:

That counsel for the Government, however, immediately upon the making of the above referred to order, set about to

ascertain the several witnesses who would be required for the purposes of the Government, and not until the 10th day of January was it ascertained that one Arthur C. Veatch,
48 an important and necessary witness for the Government, was absent from this country, having left in September, 1907, for Australia, from which place he has not, as yet, returned:

That the principal issue in this case is as to the character of the lands involved, as to whether or not they are coal lands;

That the said Veatch is a geologist of large experience, and the only witness of that character whom the Government has employed to examine the lands in controversy in this case, and is the only geologist witness whom the Government is able to call for the purpose of proving the formation and character of these lands in question;

That the said Veatch is now expected to return to this country on or about the 13th day of March, A. D. 1908.

It is further shown to the court that the testimony of the complainant has in large part been taken, but that it cannot well conclude the taking of its testimony until it can secure the testimony of the said Veatch.

This complainant would, therefore, move this Honorable Court that an extension of time be granted until April 10, 1908, within which to complete the taking of its testimony in chief, and that suitable date thereafter be fixed within which the defendant shall take its testimony, and that further allowance thereafter be made within which the complainant may take its testimony in rebuttal.

The facts in support of this motion are more fully set forth in the affidavits hereto attached, marked Exhibit A" and Exhibit B", respectively.

TIMOTHY F. BURKE,
Attorney for the United States, District of Wyoming.

49 In the Circuit Court of the United States for the Eighth Judicial Circuit, District of Wyoming.

United States of America, Plaintiff,
vs.
The Diamond Coal and Coke Company, a corporation, Defendant.
Affidavit.

"Exhibit A"

The State of Wyoming,
County of Laramie—ss.

John C. Wallis, special employe of the Department of Justice, being duly sworn, deposes and says:

That he was assigned, in the spring of 1907, to investigate the Diamond Coal and Coke Company's holdings of certain lands taken under soldier's additional homestead scrip entries in Uinta County, Wyoming, and that such investigation was made, covering the land office and the recorder's office records at Evanston, Wyoming, of the lands involved in the above entitled cause, and a report of findings was made, showing the lands to be coal and not agricultural lands.

Affiant says that, afterwards, he was assigned to prepare the proofs, after this cause was at issue and referred to the Master, and then learned, for the first time, on or about January 1, 1908, that the Government's chief and most important witness, one A. C. Veatch, geologist in the Department of the Interior, who had himself made an exhaustive investigation of the lands in controversy to determine their character, and who reported them as undoubted coal lands, was absent from the country, in Australia, since September 24, 1907, and could not be subpoenaed as a witness; and that thereupon, on or about January 5, 1908, affiant reported this fact to
50 Judge M. C. Burch, special assistant to the Attorney General, one of counsel for the Government in this case, who wired the Attorney General and received the telegraphic reply dated January 8, 1908, which is hereto attached, and which is as follows:

"Geologist Veatch left New York for Australia September 24th last, and will return by way of Seattle or Van Couver, so as to reach Washington about March 20th. (Signed) Bonaparte".

Affiant says that since it became known to anyone who in any way is responsible for the conduct and management of this case that Mr. Veatch was in Australia, there has not been time sufficient to recall Mr. Veatch, had that been possible in any event, to testify within the time fixed by the court, nor would there have been time up to February 15, 1908, the date of the expiration of the time limited by the Court for the taking of complainant's proofs under the present order in that matter.

Affiant says, further, that the deposition of this absent witness could not have been taken within the time fixed by said order, and that a deposition of the witness taken in Australia,

and without his data, report and notes which affiant believes are in Washington, referring to these lands, would have been fragmentary, uncertain and almost useless to the complainant.

Affiant says that Mr. Veatch is a man of recognized ability and experience as a geologist, in the employ of the Government for many years past, and the only geologist whom the Government sent to investigate these lands in Uinta County, Wyoming; and the results of his research cannot be properly presented except by himself, and he is, therefore, a material, important and necessary witness in this case.

Affiant says that Mr. Veatch gathered data and made a map, showing the results of his investigation and that there are coal deposits under the lands in question, which data and map cannot be intelligently explained except by said witness; and
51 that the material and controlling fact of these lands being coal lands cannot be proven by any other witness of equal knowledge by the complainant.

Affiant says that complainant expects to prove by Mr. Veatch that he found abundant evidences showing that coal exists under these scrip entered lands, and that the coal is of such character and commercial quality and within distances that make it profitable to mine the same for commercial use.

Affiant says that complainant expects to prove by Mr. Veatch that the lands in the bill described are coal and not agricultural lands.

JOHN C. WALLIS.

Subscribed in my presence and sworn to before me this 1st day of February, A. D. 1908.

(Seal) LOUIS KIRK,
Clerk of the United States Circuit Court for the District of Wyoming.
By Charles J. Ohnhaus, Deputy.

52 "Exhibit C."

583 ch gw mb 37 paid govt

Washington Dc jan 8-1908.

M C Burch,
Care U S Attorney Denver, Col.

Geologist veatch left New York for Australia September twenty fourth last and will return by way of Seattle or Vancouver so as to reach Washington about March twenty.

BONAPARTE
113 pm

53 In the Circuit Court of the United States for the District of Wyoming.

The United States
v. In Equity.
The Diamond Coal & Coke Company.

District of Columbia,
City of Washington—ss.

"Exhibit B."

George Otis Smith, having been duly sworn, says that he is Director of the Geological Survey of the United States; that he knows Arthur C. Veatch, who is a geologist under his charge and supervision; that he has been informed and believes that said Veatch is an important witness in the above-entitled suit; that said Veatch left the United States on September 24th, 1907, in pursuance of instructions from the President of the United States to proceed to Australia and New Zealand and there make certain investigations and upon the completion thereof to report in the city of Washington; that affiant has been in correspondence with said Veatch and recently had a letter from him from Melbourne, Australia, dated December 10, 1907, in which said Veatch stated that he intended to leave New Zealand on the steamer "Moana", bound for Vancouver, British Columbia, at such date as to warrant the expectation that he will arrive at said Vancouver on or about the 13th day of March, 1908.

And affiant further says that he is sufficiently well acquainted with the nature of the mission of said Veatch and also is aware of the fact that his notes to be used as a witness by him in the above-entitled cause would probably become
54 necessary and that they are undoubtedly in his files here in the city of Washington; that the same are of such a nature as would undoubtedly require him to see and look over them for some little time before testifying as a witness at Cheyenne or any other point in Wyoming; and that from the best judgment affiant can form under the circumstances it would hardly [to] safe to warrant the expectation that said Veatch could attend for the purpose of having his testimony taken at any point in Wyoming before the date of March 10th, 1908.

And further affiant sayeth not.

GEO. OTIS SMITH.

Witness:
Ben S. Favorite.

Subscribed and sworn to before me this 28th day of January, A. D. 1908.

(Seal) JOHN D. McCHESNEY,
Notary Public.

Commission expires April 1, 1908.

Endorsements: No. 333. In the U. S. Circuit Court, District of Wyoming. United States of America, Plaintiff, vs. The Diamond Coal and Coke Company, a Corporation, Defendant. Motion. Filed Feby. 3, 1908. Louis Kirk, Clerk. Timothy F. Burke, United States Attorney.

55 In the Circuit Court of the United States for the Eighth Judicial Circuit, District of Wyoming.

United States of America, Plaintiff,
No. 333. vs.
The Diamond Coal and Coke Company, a Corporation, Defendant.

Order.

This case coming on to be heard upon the motion of the plaintiff for an extension of time within which to take its testimony, the plaintiff appearing by John C. Wallis and Timothy F. Burke, United States Attorney for the District of Wyoming, the defendant appearing by its counsel, B. M. Ausherman, the Court having carefully considered said motion, together with the affidavits in support thereof, and listened to argument of counsel, and being fully advised in the premises, grants said motion.

And it is hereby ordered that the plaintiff do have until and including the 10th day of April, A. D. 1908, within which to complete the taking of its testimony in chief, said testimony to be taken at one hearing before the Master, the defendant to have thirty days thereafter within which to take its testimony, and the plaintiff fifteen days thereafter, or until and including the 25th day of May, A. D. 1908, within which to take its testimony in rebuttal, all of said testimony to be taken at Evanston, in the County of Uinta, within this District.

JOHN A. RINER, Judge.

56 Endorsements: No. 333. In the U. S. Circuit Court, District of Wyoming. United States of America, Plaintiff, vs. The Diamond Coal and Coke Company, a Corporation, Defendant. Order extending time to take testimony. Filed Feb. 3, 1908. Louis Kirk, Clerk, By Charles J. Ohnhaus, Deputy. Timothy F. Burke, United States Attorney.

57 In the Circuit Court of the United States, for the Eighth Judicial Circuit, District of Wyoming.

United States of America, Plaintiff,
vs.
The Diamond Coal and Coke Company, a corporation, Defendant.

Stipulation.

It appearing that the record in this case is very voluminous, consisting of between two and three thousand pages, and time in which to abstract the testimony for the convenience of counsel and the Court is required,—

It is hereby stipulated by and between the parties hereto, by and through their respective counsel, that this case may now be set for hearing on the 28th day of September, A. D. 1908.

TIMOTHY F. BURKE,
United States Attorney, District of Wyoming, Attorney for Plaintiff.

B. M. AUSHERMAN,
Attorney for Defendant.

Endorsements: No. 333. In the U. S. Circuit Court, District of Wyoming. United States of America, Plaintiff, vs. The Diamond Coal and Coke Company, a corporation, Defendant. Stipulation. Filed May 27, 1908. Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy.

58 In the Circuit Court of the United States for the Eighth Judicial Circuit, District of Wyoming.

United States of America, Plaintiff,
No. 333. vs.
The Diamond Coal and Coke Company, a corporation, Defendant.

Order.

This case coming on, upon application of counsel for the defendant, to be reset for hearing at this term, it is hereby considered and ordered that the same be, and is hereby, reset for hearing on the 28th day of September, A. D. 1908.

JOHN A. RINER, Judge.

Endorsements: No. 333. In the U. S. Circuit Court, District of Wyoming. United States of America, Plaintiff, vs. The Diamond Coal and Coke Company, a corporation, Defendant. Order. Filed May 27, 1908. Louis Kirk, Clerk. By Charles J. Ohnhaus, Deputy.

Filed Oct. 15, 1909. John D. Jordan, Clerk.

59 United States of America
District of Wyoming.

In the Circuit Court of the United States for the District of Wyoming.

United States of America Plaintiff,
No. 333. vs.
Diamond Coal & Coke Company, a corporation, Defendant.

Report of Clyde M. Watts, Special Master in Chancery.

I, Clyde M. Watts, Special Master in Chancery of said Court, do hereby certify that in accordance with the order hereto attached, before me, at the Federal Building in the City of Cheyenne, and at the Federal Building at the City of Evanston, were produced and personally appeared before me divers witnesses on behalf both of the plaintiff and defendant; and the said witnesses being by me first duly sworn to testify to the truth, the whole truth and nothing but the truth in said cause, and being carefully examined deposed and said as appears in the testimony hereto annexed, said testimony being taken in three hearings as hereinafter set forth.

60 Circuit Court of the United States, Eighth Circuit, District of Wyoming.

United States of America, Complainant,
333. vs.
Diamond Coke & Coal Company, Defendants.

Appearances: For Complainant,
JOHN C. WALLIS,
TIMOTHY F. BURKE,
U. S. District Attorney for Wyoming.

For Defendant,
C. F. KELLEY,
L. O. EVANS,
B. M. AUSHERMAN.

Before Hon. Clyde M. Watts, Master in Chancery and Examiner.

Be it remembered that the above entitled cause came on for hearing at Cheyenne, Wyoming, on Monday, Jan. 20th, 1908, before the Master in Chancery.

Whereupon, the complainant and defendant, each appearing by their respective counsel, named above, the following
61 stipulation was entered into: It is hereby stipulated by and between the parties, by and through their respective counsel, that the testimony may be taken by Mr. C. J. Ownhaus,

in shorthand, and hereafter extended, the signatures of the several witnesses to their respective testimony being hereby waived.

Alpheus P. Hansen, called as a witness on behalf of complainant, being first duly sworn, upon oath testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. Alpheus P. Hansen.

Q. What official position do you hold under the Government of the United States?

A. I am United States Surveyor General for Wyoming.

Q. How long have you held that position?

A. About ten years.

Q. You may state if, as such, you are the custodian of the records of that office? A. I am.

Q. Have you with you the records of that office relating to the surveys of townships 18, 19 and 20 in ranges 116 and 117 in the territory, now state of Wyoming?

A. I have with me the records of townships 18, 19 and 20
62 north, range 116 west, the plats and field notes.

Q. You have not those of range 117 with you?

A. I don't think so. I can get them if you desire; I have them in the office.

Q. I do desire them. It won't take you more than a minute to get them will it?

A. No, sir. You want the same townships, but range 117?

Q. Yes. A. All right, I will get them.

Witness returns with books.

Q. I wish you would turn to the field notes for townships 18, 19 and 20, range 116. I just want the entire field notes for those townships.

A. I have them.

Mr. Burke:

I offer in evidence the field notes of the surveys of townships 18, 19 and 20, in range 116 west of the sixth principal meridian in Wyoming being pages—

Q. What General?

A. Well, that will take some time to look up. For the survey of township north, range 116 west, the field notes returned in the record begins on page 52. You will find that in the field notes of subdivisions, vol. 42, 1874, beginning on page 52, to 106, inclusive.

Q. Now, as to 19? A. 19—116?

Q. Yes.

A. Township 19 north, 116 west, in the same book of field notes. The field notes begin on 107 to 128, inclusive.

63 Q. Now, then, as to township 20.

A. Township 20 north, range 116 west, in the same book of field notes, begins on page 259, to 316, inclusive.

Mr. Burke:

So much of Vol. 42 of Field Notes, 1874, as indicated, I offer in evidence in this case, marked Plaintiff's Exhibit No. 1.

Mr. Ausherman:

Counsel for defendant objects to the admission of these matters in evidence on the ground that the evidence as offered is not material, and for the further reason that, if it is the purpose by this evidence to show the character of the land or anything pertaining to the survey at the time it was surveyed, if this survey was made prior to the year 1900 it is immaterial, and it is not the best evidence to establish the character of this land or the character of the entries as made thereon or the purpose or intention of the entrymen in making these various entries, as claimed and set up in the bill in equity in this case; for the further reason that this evidence embraces numerous lands that are not in controversy in this case.

Q. What other record have you of these surveys, if any, General, in any other form?

A. The plats; the township plats.

Mr. Burke:

I now offer in evidence the township plats of townships 18, 19 and 20 north, range 116 west of the 6th principal meridian.

Mr. Ausherman:

Defendant objects for the reasons heretofore set forth,

64 the maps showing for themselves that the surveys and notations made thereon were made as far back as the year 1874, and it is immaterial what the condition of the lands was in 1874 or what they may have shown in 1874 or at any time prior to the time alleged in the bill in equity in this suit as to the character and condition of the land or as to the conspiracy which is set up in the bill against this defendant.

It was then and there agreed between the parties by and through their respective counsel that the exemplification of these records shall be substituted for the original records and made a part of the evidence in this suit, subject to the objection of the defendant, the three quotations from Vol. 42 of the Field Notes and the three township plats being numbered complainant's exhibit 1, 2, 3 and 4 in this case.

And said exhibits 1, 2, 3 and 4 are in words and figures as follows, to-wit:

65 Mortimer N. Grant, called as a witness on behalf of complainant, being first duly sworn, upon oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. You may state your name. A. Mortimer N. Grant.

Q. Where do you live, Mr. Grant?

A. Laramie, Wyoming.

Q. What is your business?

A. I am in the mining business now.

Q. What has been your profession in life? A. Surveyor.

Q. How long did you follow that?

A. About twelve years.

Q. Are you the Mortimer N. Grant who made the surveys, record of which is found in complainant's exhibit 1, 2, 3 and 4 as introduced in evidence here?

A. Yes,sir.

Q. Do you recall, as a matter of memory, the making of that survey and those notes? A. Yes, sir.

Q. What is the fact as to whether you, personally, were on each and all of those sections, the survey of which is recorded in exhibit 1, and recorded in exhibits 2, 3 and 4?

A. I was on all of the sections myself, in person.

Q. I observe from examination of exhibits 1, 2, 3 and 4, that in township 18 north, range 116 west, they are designated as "Co. lands". I will ask you as to how you came to so designate them in your returns or surveys?

66 Mr. Ausherman: Defendant objects to that as immaterial. The records show for themselves, and we object for the further reason that this survey, as shown by the plats, was made back in the early 70's, and it is immaterial to the issues in this case as to what that surveyor or any other surveyor may have found the condition of these lands to have been at any time prior to the time set forth in the bill in equity in this case; for the further reason that this witness has not qualified himself to answer the question as presented.

A. It was from finding coal and indications of coal on the various sections designated.

Q. What is the character of those lands throughout those townships, as you remember them?

A. As to topography do you mean?

Q. Yes, as to the topography and the general character of the land.

Mr. Ausherman: Defendant objects to that question for the reason that the record evidence as introduced involves lands

other than those in controversy in this case, and this question calls for the character or condition of those lands.

We also object to it for the reasons stated before, that the records show for themselves that this survey was made back in the early 70's, and that the condition of these lands prior to the time set forth in the bill in equity in this case is immaterial to any of the issues presented in the case.

67 A. The general surface of the land was rolling, some of it broken, and there was a few places where it was flat. As to the soil, it was what is commonly known as sage brush soil. There is alkali in soil of that character. It was very poor grazing land, and on one of the townships there was some scattering, scrub cedar.

Q. What have you to say as to whether there were any agricultural lands either in whole or in part?

Mr. Ausherman: Defendant objects to the question for the reason that it involves lands other than those in controversy in this case, and for the further reason that the records show that this survey was made in the early 70's, and that the condition of these lands prior to the time set forth in the bill of equity is immaterial to any of the issues presented in this case.

A. I do not consider them agricultural lands in any sense.

Q. What was the altitude, or about what was the altitude, if you know, of those townships?

A. Something over seven thousand feet; I should say between seven thousand and seventy-five hundred feet.

Q. And what was true as to whether they were rocky or not?

A. There was portions of it that was rocky—sandstone, and portions of it that was not.

Q. To what extent was they grassed?

A. There was very little grass; it was very poor grazing land. It was principally what is commonly known as sage brush land.

Q. Now, what is true as to whether this applies also to townships 19 and 20?

68 Mr. Ausherman: Defendant objects to the question for the reason that it involves lands other than those in controversy in this case, and for the further reason that the records show that this survey was made in the early 70's, and that the condition of those lands prior to the time set forth in the bill of equity is immaterial to any of the issues presented in this case.

A. Well, that description was given, supposing that it was in answer to all three of those townships, 18, 19 and 20 north, range 116 west.

Cross-Examination

By Mr. Ausherman:

Q. Mr. Grant, you are testifiying from your memory of what you found there at the time of your survey, are you as to the condition and character of the lands?

A. Well, partly from that and partly from the field notes that I made at that time.

Q. You have refreshed your memory, then, since the time of this survey, as to what your field notes contain?

A. Yes, sir.

Q. And as to what the condition of the lands was at the time?

A. Well, in that—I have been partly over these lands since that time several times, and have a general knowledge of it, outside of the field notes, since the survey was made.

Q. When were you last over these lands?

A. Well, I passed through there on the train in October.

Q. Did you cross any of these lands on the train in travelling over the Short Line road?

A. I dont know, really, whether the Short Line runs across these lands or not.

69 Q. You are thoroughly familiar with these lands?

A. Well, I was, at that time.

Q. You are not testifying that these lands are coal lands merely because you find that your notes contain the notations that they are of that character?

A. That is what I base it on, is my notes, as to coal.

Q. Did you, or do you recall the finding of coal on all of these lands in question here?

A. I do not.

Q. What portion, now, of these lands did you find coal on?

A. That I dont remember.

Q. Mr. Grant, by reference to this record evidence, that is, plaintiff's exhibits, 2, 3 and 4, we find notations that are made in the form of little dots. Did you make those dots; did you make each of these dots?

A. I think that was made in the Surveyor General's office, from the notes and records that I returned to the Surveyor General's office.

Q. I am calling your attention to the portions of the maps as offered in evidence, which are indicated as being coal in character. On what portion of that land did you find coal.

A. Well, that I don't remember.

Q. Did you find coal on all of that land, or indications of coal, wherever those dots or markings occur as shown by these plats?

A. Not where the dots are shown. The only portion of this land that I was over is where the section lines cross between the sections. There is portions of it that I was not over, but that is—

70 Q. There is, Mr. Grant, one dip or cropping of coal extending clear through this land, upon which we find mines located, clear through that country? A. Yes.

Q. Did you find more than this one cropping, this one vein of coal anywhere on that land?

A. I dont remember whether I did or not.

Q. But you do have a recollection of finding this vein of coal, one vein of coal, at least?

A. No, I didn't say that I had.

Q. Why is it, then, that you designated, or designate, any part of this land as coal land, if you didn't find a vein of coal?

A. I didn't say that I didn't find a vein of coal; I didn't say anything of that kind.

Q. Did you find a vein of coal?

A. I say I dont know whether I did or not.

Q. You dont recall?

A. I dont recall. The chances are that I did, or I would not have designated it as coal land.

Q. Will you refer to your notes and see what your notes show?

A. My notes simply state that I found coal in sections 5, 6, 7, 8, 17, 18, 19, 20, 29, 30 and 31.

Q. In what townships?

A. That is in township 18 north, range 116 west.

Q. Now, what was the character or condition of the coal that you found at that time? A. I dont remember.

Q. Was it coal of value?

A. I dont remember. I dont suppose it was, the croppings, the surface stuff.

71 Q. You say the country of these various townships is broken?

A. Portions of them is.

Q. Did you find any land there that was grazing land?

A. Yes, there was grazing land; there is some noted in the notes here, too.

Q. Isn't it true that you find quite a valley there that was excellent agricultural land [of] water could be placed on it? A. In which township?

Q. In township 20 and township 19, both of those townships, in fact, in all three of the townships, on the west side of of the vein of coal.

A. My notation on township 20 is: "The land in this township is of a very poor quality, except in the valley of Ham's Fork, where it is first rate." Ham's Fork runs through section 2, section 3 and section 10.

Q. That is east, is it not, of the coal vein that runs through that country?

A. Let us see—sections 2, 3, 4, 5, 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, 29, 32, and 33 are designated as being coal in character.

Q. I will ask you again, Mr. Grant, if you can recall the number of times that you have been in that country or in the vicinity of this land or on this land since the time of the survey. Have you ever been on it since the time of the survey?

A. I dont know whether I have or not.

Q. Mr. Grant, how old are you?

A. I was born in March, 1851.

Q. When was this survey made, do you recall?

A. 1874.

72 Q. That would make you how many years of age at the time you made the survey?

A. Twenty-three, I guess, wouldn't it?

Q. What experience had you had prior to that time, as a surveyor? A. I started out with a surveying party in 1870.

Q. You had had, then, four years experience? A. Yes.

Q. When did you become employed as a contractor, with the Government? A. 1871 I think.

Q. At that time what experience had you had, if any, in coal mining?

A. I never had any experience in coal mining at any time.

Q. What other surveys had you made for the Government or on behalf of the Government, in the way or contract or otherwise, in this country at that time?

A. At Rock Springs I surveyed, and helped survey. I surveyed part of it.

Q. Sweetwater County, any part of that county?

A. Yes, Rock Springs, the township Rock Springs is in, that is, where those coal mines are in Rock Springs; and then at Evanston, I surveyed there in the fall of 1871, and at Gree River later.

Q. Did you ever find any coal that, to your knowledge, was coal of value in Uinta County, the county in which these various townships, or of which the plats of the various townships are offered in evidence, are located?

73 A. Well, I don't know as to coal of value. Of course, the outcrop of the coal, where there has been no work done on it, would not be of any value; it would be rotted and decomposed to such an extent that it would not be of any value until further depth was obtained upon it.

Q. Did you know of any coal of any value being found in Uinta County at that time? A. Yes, in that county.

Q. In what locality? A. Alma.

Q. How far distant was this from your place of survey?

A. That is in the western part of the county; it is just north of Evanston. I don't remember what the range is there; I couldn't tell without looking at the map.

Q. Why did you designate in your field notes that this was coal land, if you didn't find any coal of value there?

A. Well, from my experience as to the character of coal lands, I considered it coal land, and so returned it to the Government.

Q. Mr. Grant, may be I misunderstood you. I will ask you again to state whether you found indications of coal on all of those various sections of land that you have enumerated in answer to questions propounded to you?

A. Well, that I only know from the record made of it in the field notes. I haven't any personal recollection as to just what I found, only in the records made from it.

Q. You say your notes are correct?

A. I think my notes are correct; I had no reason to make them any other way.

Q. What is the custom? When a surveyor or contractor files his field notes, is it customary for him to swear to
74 them or take oath, or anything of the kind in the way of verification? A. Yes.

Q. They show for themselves, of course, but I want to know. Then, would you say that there was coal on every individual section that you have so enumerated?

A. No, I shouldn't say that; I should say there was indications of coal.

Q. What do you mean by indications, then?

A. Why, the formations and the outcrops that make it appear as coal land, as a formation carrying coal.

Q. If you should find an outcrop on one section of land, and should ascertain that there was a dip that would carry that vein beneath or under adjoining sections, was it your custom to demoninate or designate the adjoining sections as containing indications of coal?

A. Yes, I think that would be one thing that I would be governed by.

Q. Now, is it not true, Mr. Grant, that a greater portion of all the lands that are in controversy here this morning, have been so designated by you for the reason that you found an outcrop, and that that outcrop indicated a vein that dipped to a certain direction and continued under adjoining lands?

A. Well, now, I don't remember whether that influenced me in designating them as such, or not.

Q. Would you say, from what you know of these lands and from your field notes, that there was more than the one outcrop across these lands?

A. That I don't remember about, either.

Q. Would you say that there was an outcrop found on
75 every section that you have designated as coal lands?

A. I don't think so.

Re-direct Examination

By Mr. Burke:

Q. You say you had surveyed at Rock Springs prior to making this survey? A. Yes.

Q. And had surveyed at Evanston? A. Yes.

Q. And had you thus become acquainted with coal lands and what constituted coal lands, so that you could pass upon the lands in question? A. Yes, sir.

(Witness excused.)

Whereupon, upon request of counsel for complainant, further hearing was adjourned until Wednesday, Jan. 22nd, 1908, at Evanston, Wyoming, at the office of the Receiver of the Land Office, in the Federal Building.

76 Wednesday, January 22nd, 1908, 10. A. M. Evanston, Wyoming.

Thomas V. Davis, called as a witness on behalf of complainant, being first duly sworn, upon oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. You may state your name. A. Thomas V. Davis.

Q. What official position, if any, do you hold under the Government of the United States?

A. Register of the Land Office at Evanston.

Q. Wyoming? A. Yes, sir.

Q. That is, the United States Land Office?

A. Yes sir.

Q. How long have you held that position?

A. Two years.

Q. And as such, you are the custodian, with the Receiver, of the records of the United States Land Office at Evanston, Wyoming? A. Yes, sir.

Q. State as to what those records consist of. Take as to homestead, soldiers' additional homestead entries; what do the records consist of; what are the records of your office?

A. They consist of an original application and a final certificate, a tract book that keeps the record, a plat book
77 and a patent book.

Q. A book of original entry, isn't it?

A. A book of original entry, final entry, tract book, plat book and patent book.

Q. Have you with you the original entry book showing entry No. 908? A. 908, yes, sir.

Q. Where in this book is that entry found?

A. Why, it is found on page 30 of the book—I don't see no page here.

Q. It is found under its appropriate number, 908; is that right?

A. Yes, sir, that is the final certificate number. This is the final receipt. The original number is 2424; that is the original number of that entry.

Q. And final number, 908. What is this book?

A. This is the original entry book.

Q. That is what I asked for. It is found in the original entry book under number 2424?

A. No. 2424, dated July 15th—entry made, you understand—1903.

Mr. Burke: We offer in evidence line 28.—

The Witness: Of Original Homestead Entry book—

Mr. Burke: —of Original Homestead Enery book, under its appropriate number, 2424, together with the headlines indicating the character of the several entries made thereunder.

78 Mr. Kelley: Defendant objects to this on the ground that it is incompetent, immaterial and irrelevant for any purpose, first, because the entry is pleaded in the bill of complaint and admitted in the answer, and therefore the introduction in evidence of the record merely encumbers the record in this case, and further, for the reason that there is no issue involved in the case as to the manner in which the land was obtained as far as the obtaining of title from the United States Government is concerned, there being no allegation in the complaint or in the answer that the land was obtained other than in the regular way provided by law for the obtaining of title to land under Soldiers' Additional Homestead Scrip; the only question being as to the character of the land. We object to this, further, on the ground that the record is not competent evidence, for the reason that it is not the original application or entry, but is merely a copy or notation made by an officer of the Land Department, and that it is not an evidence of any fact or purported fact.

Line 28 of Original Homestead Entry book, under No. 2424, marked complainant's exhibit No. 5, and appended hereto on sheet of exemplifications from said book.

It was thereupon stipulated by and between the parties to this action that an exemplification of the entry, together with all other entries that may hereafter be introduced, may be made by the Register or Receiver and certified to, and attached to the record in place of the original entry book; subject to all objections as to the competency, relevancy or materiality of the evidence or as to the necessity of introducing the same.

It is further stipulated that the same objection may be considered as made to all offers of any record evidence in
79 regard to any of the entries described in the complaint.

Q. Now, then, you may produce the Tract book, disclosing this same final entry, No. 908. A. (Entry produced.)

Mr. Burke: Complainant now introduces in evidence line 45 in Tract Book No. 22, page 102, together with the headlines indicating the character of the several entries thereon made.

Same objection noted by defendants.

Line 45, page 102, Tract Book No. 22, marked plaintiff's exhibit No. 6, and appended hereto on sheet of exemplification from Tract Book No. 23.

Q. Now, turn to the same entry, as you have it made in the Final Receipt Book?

A. (Producing book.) 908, there is the entry right there. That is the final entry right there, the final certificate.

Mr. Burke: Plaintiff offers in evidence line No. 20, under the appropriate entry number, 908, of the Register of Final Homestead certificates.

Same objection noted by defendant.

Line 20, under No. 908, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 7, and appended hereto on sheet of exemplification from Register of Final Homestead Certificates.

Q. Now, you may produce the Patent book of your office, showing the entry of this item.

A. (Producing book.) Here we are; 908.

80 Mr. Burke: Plaintiff introduces line 31, page 62 of the record of patents delivered, with the appropriate headings to each column, explanatory thereof.

Same objection noted by defendant.

Line 31, page 62, record of Patents Delivered, marked plaintiff's exhibit 8, and appended hereto on sheet of exemplifications from said book.

Q. With reference to exhibits 9, 10, 11, 12 and 13, I will ask you as to whether those are part of the files of your office or not?

A. Yes, sir, they were filed in this office.

Q. And appertain to this entry, No. 908, of which you have been testifying?

A. Yes, sir; lots 1 and 2 in section 18; that is it.

Mr. Burke: Plaintiff offers in evidence exhibits Nos. 9, 10, 11, 12 and 13, marked for identification; exhibit No. 9 being the original application of Thomas Snedden; exhibit No. 10 being non-mineral affidavit in support thereof; No. 11 being another non-mineral affidavit by Thomas Snedden in support thereof; No. 12 being the final Receiver's Receipt, and No. 13 being the Register's Receipt.

Same objection by defendant.

Said respective exhibits 9, 10, 11, 12 and 13, being in words and figures as follows, to-wit:

81. Q. You will now turn to the place in your record of the original entry as to entry No. 719.

A. This is the final certificate again.

Q. That is what?

A. This will be the final receipt again.

Q. I want the original entry.

A. No. 1933; that is the original entry.

Q. The original entry number is 1933 of the final entry No. 719, is it?

A. Yes, sir. Here we are, section 18, township 20 north, range 116, containing 94.17 acres.

Mr. Burke: Plaintiff now introduces in evidence line No. 9, together with the headlines explanatory thereof, of the original entry, No. 1933, final entry No. 719, as found in the Register of Homestead Receipts.

Same objection by defendant.

Line 9, under No. 1933, Register of Homestead Receipts, marked plaintiff's exhibit No. 14 and appended hereto on sheet of exemplifications of said book.

Q. Will you turn to your Tract Book and exhibit the same entry as therein made?

A. There you are. This is the entry here. Final receipt No. 747, original entry No. 1993, filed Jan. 19th, 1901, and the

original entry was made Jan. 19th, 1901. Scrip entries are always completed the first day they are made.

Mr. Burke: Plaintiff introduces in evidence the fourth line from the bottom of page 102, Tract Book No. 22.

82 Same objection by defendant.

Fourth line from bottom of page 102, Tract Book No. 22, marked plaintiff's exhibit No. 15 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your record of final receipts and exhibit the same?

A. I believe you have not got this record correct, sir; I believe that that is the entry which was made, (Indicating) and it was made on Nov. 2nd, 1900.

Q. Will you turn to your record of final receipts. You identify this line as the record of that entry? A. Yes, sir.

Mr. Burke: Plaintiff introduces in evidence line No. 9, under the appropriate number, 710, of the Register of Final Homestead Certificates, together with the headlines explanatory of the entry thereon made.

Same objection by defendant.

Line No. 9 under No. 719, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 16 and appended hereto on sheet of exemplifications of said book.

Q. You may examine these exhibits, which I have had marked Nos. 17, 18 and 19, and state as to whether those are files of your office or not.

A. Yes, sir, that was filed here on May 8th, 1899.

83 Q. And the wrapper on the outside of that paper you identify as part of your files?

A. May 8th, 1899, yes, sir; and two final receipts.

Mr. Burke: Plaintiff offers in evidence the paper marked exhibit No. 17, being the additional entry application; exhibit No. 18, being the Receiver's final receipt; and exhibit No. 19, being the Register's final receipt.

Same objection by defendant.

And the said exhibits, Nos. 17, 18 and 19, so introduced in evidence, are in words and figures as follows, to-wit:

84 Q. I would ask you, if you know, as to where the non-mineral affidavit, if any, is, belonging to that entry?

A. No, sir, I could not tell you that.

Q. Can you tell me now as to whether there was one filed with that entry?

A. Well, I presume there was, because the entry would not be allowed unless a non-mineral affidavit was filed with it.

Mr. Kelley: Defendant objects to that statement, and moves to strike it out, on the ground that it is a mere conclusion of the witness.

Q. Now, you may turn to your patent record as to that entry. A. Here we are.

Mr. Burke: Plaintiff offers in evidence line 3, page 54, with the headlines explanatory of the entry thereon made, of the record of Patents Delivered.

Same objection noted by defendant.

Line 3, page 54, record of Patents Delivered, marked plaintiff's exhibit No. 20 and appended hereto on sheet of exemplifications from said book.

Q. You may [not] turn to the original entry book, and exhibit if you will, the entry bearing the final number, 747.
A. (Book produced.)
Q. What is the original entry number of that entry?
A. 1993.

Mr. Burke: Plaintiff introduces line 14, original entry
85 No. 1993, final No. 747, as found in the Register of Homestead Receipts, together with the headlines explanatory of the entry thereon made.

Same objection noted by defendant.

Line 14, original No. 1993, Register of Homestead Receipts, marked plaintiff's exhibit 21 and appended hereto on sheet of exemplifications from said book.

Q. Now, then, turn to the Tract Book and exhibit the same entry as therein made.
A. 747, here you are, the final certificate.
Q. This is the final; this is not the Tract Book, is it?
A. No.
Q. Well it is the Tract Book I want. A. Here it is.

Mr. Burke: Plaintiff introduces line five from the bottom on page 102 of Tract Book No. 22, together with the headlines explanatory of the entry thereon made.

Same objection noted by defendant.

Line five from the bottom, page 102, Tract Book No. 22, marked plaintiff's exhibit No. 22, and appended hereto on sheet of exemplifications from said book.

Q. Now, will you turn to the Final Receipt book, showing that entry as therein made. A. There she is, 747.

Mr. Burke: Plaintiff introduces line 7 from the top,
86 under the appropriate entry number, 747, of the Register of Final Homestead certificates, together with the headlines explanatory of the entry therein made.

Same objection noted by defendant.

Line 7, entry No. 747, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 23 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Patent Book, showing the record as there made of this entry, No. 747.
A. Here we are.

Mr. Burke: Plaintiff introduces line 21, on page 54 of the record of Patents Delivered.

Same objection noted by defendant.

Line 21, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 24 and appended hereto on sheet of exemplifications from said book.

Q. I have here papers which I have had marked plaintiff's exhibits Nos. 25, 26, 27 and 28. I will ask you whether or not those are parts of the files of your office?
A. Yes, sir; they were filed here on May 1st, 1899.

Mr. Burke: Plaintiff now offers in evidence exhibit No. 25, being the application of Thomas Snedden; exhibit No. 26, non-mineral affidavit in support thereof; exhibit No. 27, final Receiver's Receipt; and exhibit No. 28, Final Certificate of Register.

87 Same objection noted by defendant.

And the said exhibits Nos. 25, 26, 27 and 28 are in words and figures as follows, to-wit:

88 Q. Will you turn to your original entry book and exhibit the entry as therein made as to Final Entry No. 757? A. Here we are.

Mr. Burke: Plaintiff now introduces in evidence line No. 1, under the appropriate number, 757, of the Register of Homestead Receipts, together with the headlines explanatory of the entry therein made.

Same objection noted by defendant.

Line No. 1, No. 757, Register of Homestead Receipts, marked plaintiff's exhibit No. 29 and appended hereto on sheet of exemplifications from said book.

Q. Turn to the Tract Book and to the entry therein made as to this same number.

A. It is right here, I think, No. 2016.

Q. It is the north half of the northeast quarter and the northeast quarter of the northwest quarter of section 18, township 20, bearing the original number, 2016? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence line No. 6 from the bottom, on page 102 of Tract Book No. 22.

Same objection noted by defendant.

Line 6 from the bottom, page 102, Tract Book No. 22, marked plaintiff's exhibit No. 30 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Final Receipt record, to the entry therein made as to the same number.

89 A. Here it is.

Mr. Burke: Plaintiff now introduces in evidence line 14, under the appropriate number, 757, of the Register of Final Homestead Receipts, together with the headlines explanatory of the entry therein made.

Same objection noted by defendant.

Line 14, No. 757, Register of Final Homestead Receipts, marked plaintiff's exhibit No. 31 and appended hereto on the sheet of exemplifications from said book.

Q. You may turn now to your record of Patents Issued and exhibit the entry as therein made, if any patent was issued for this entry bearing No. 757.

A. Here it is.

Mr. Burke: Plaintiff introduces in evidence line 17, on page 55, of the Record of Patents Delivered, together with the headlines explanatory of the entry as therein made.

Same objection noted by defendant.

Line 17, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 32 and appended hereto on sheet of exemplifications from said book.

Q. I have here papers marked exhibits Nos. 33, 34, 35 and 36.

A. These were filed October 26th, 1901.

90 Q. You may state as to whether or not those are parts of the files of your office? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence exhibit No. 33, being the application of Thomas Snedden; exhibit No. 34, non-mineral affidavit of Thomas Snedden; exhibit No. 35, Final Receiver's Receipt; exhibit No. 36, being Final Certificate of Register; all relating to entry No. 757.

Same objection noted by defendant.

And the said exhibits Nos. 33, 34, 35 and 36 are in words and figures as follows, to-wit:

91 Q. Mr. Davis, I wish you would turn to your original entry book and exhibit the entry made therein in relation to Final Entry, No. 775.

A. That is No. 2060 in the original book.

Mr. Burke: Plaintiff now introduces in evidence line 18, bearing the original number, 2060, of the Register of Homestead Receipts, together with the headline explanatory of the entry as therein made.

Same objection noted by defendant.

Line 18, original No. 2060, Register of Homestead Receipts, marked plaintiff's exhibit No. 37 and appended hereto on sheet of exemplifications from said book.

Q. Will you now turn to your Tract Book and exhibit the entry as therein made of this same entry?

A. Now, that has been marked again, you see, 2060.

Q. That is the southeast quarter of the northwest quarter and the south half of the northeast quarter; is that it?

A. Yes sir.

Mr. Burke: Plaintiff now introduces in evidence line No. 2 from the bottom on page 102, of Tract Book No. 22.

Same objection noted by defendant.

Line 2 from the bottom, page 102, Tract Book No. 22, marked plaintiff's exhibit No. 38 and appended hereto on sheet of exemplifications from said book.

92 Q. Will you turn to the same entry in your Register of Final Receipts? A. Here it is.

Mr. Burke: Plaintiff introduces in evidence line 22, under the appropriate number 775, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as therein made.

Same objection noted by defendant.

Line 22, No. 775, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 39 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Record of Patents Delivered and exhibit the entry therein made in relation to this entry?
A. Here it is.

Mr. Burke: Plaintiff now introduces in evidence line 25, page 55, of the Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 25, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 40 and appended hereto on sheet of exemplifications from said book.

Q. I have marked the original papers, exhibits Nos. 41, 42, 43 and 44. I will ask you as to whether or not those are parts of the files of your office?

93 A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence exhibit No. 41, being the application of Thomas Snedden; exhibit No. 42, being non-mineral affidavit; exhibit No. 43, being final Receiver's Receipt; exhibit No. 44, being the final Certificate of Register.

Same objection noted by defendant.

And the said exhibits, Nos. 41, 42, 43 and 44 are in words and figures as follows, to-wit:

94 Q. Mr. Davis, will you now turn to your original entry book and exhibit the entry that bears final entry No. 776, and give the original number.
A. 2061 is the original number. The north half of the southeast quarter of section 18.

Mr. Burke: Plaintiff now introduces in evidence line 21 under the appropriate number, 2061, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 21, No. 2061, Register of Homestead Receipts, marked plaintiff's exhibit No. 45, and appended hereto on sheet of exemplifications from said book.

Q. Will you please produce your Tract Book, showing the entry as therein made under this No. 776.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence the bottom line on page 102 of Tract Book No. 22, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Bottom line of page 102, Tract Book No. 22, marked plaintiff's exhibit No. 46, and appended hereto on sheet of exemplifications from said book.

(Register of Final Homestead Certificates, entry No. 776, produced.)

95 Mr. Burke: Plaintiff now offers in evidence line 24, under the appropriate number, 776, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 24, No. 776, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 47 and appended hereto on sheet of exemplifications from said book.

Q. You may now produce your book recording the issuance of Patents, and the entry therein made as to this No. 776.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 27, page 55, record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 27, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 48 and appended hereto on sheet of exemplifications from said book.

Q. I now produce five papers, which I have had marked exhibits Nos. 49, 50, 51, 52 and 53, and I will ask you as to whether or not you recognize those papers as part of your files?
A. Yes, sir. They were filed in this office on May 9th, 1901.

96 Mr. Burke: Plaintiff now offers in evidence paper entitled Application, signed by Thomas Snedden, being plaintiff's exhibit No. 49; paper entitled Affidavit of Assignee, signed by Thomas Snedden, marked plaintiff's exhibit No. 50; paper entitled Non-mineral affidavit by Thomas Snedden, marked plaintiff's exhibit No. 51; Final Receiver's Receipt, being paper marked plaintiff's exhibit No. 52; Final Certificate of Register being paper marked plaintiff's exhibit No. 53.

Same objection noted by defendant.

And the said plaintiff's exhibits. Nos. 49, 50, 51, 52 and 53, are in words and figures as follows, to-wit:

97 Q. Mr. Davis, you may turn to your original entry book, and to the entry that finally bore No. 744, and exhibit the entry as therein made with reference to that matter.
A. That is the original entry No. 1988.

Mr. Burke: Plaintiff now introduces in evidence the first line, bearing the number, 1988, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

First line, No. 1988, Register of Homestead Receipts, marked plaintiff's exhibit No. 54 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and exhibit this same entry? A. That is it there, I believe.
Q. Tell us the description.
A. The south half of the southeast quarter of section 18.

Mr. Burke: Plaintiff now introduces in evidence the third line from the bottom on page 102 of Tract Book 22, original entry number 1988.

Same objection noted by defendant.

Third line from bottom, page 102, Tract Book No. 22, marked plaintiff's exhibit No. 55 and appended hereto on sheet of exemplifications from said book.

98 Q. You may turn now to your Register of Final Receipts and exhibit the entry of the same matter as it therein appears. A. Final number, 744; it is this top line.

Mr. Burke: Plaintiff now introduces in evidence the first line, under the appropriate number, 744, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

First line, No. 744, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 56 and appended hereto on sheet of exemplifications from said book.

Q. Now, if you will turn to your Patent Book and show what entry you have there in relation to this entry, No. 744.
A. It was patented July 18th, 1901. Here it is.

Mr. Burke: Plaintiff now introduces in evidence line 12 from the bottom on page 53 of the Record of Patents Delivered.

Same objection noted by defendant.

Line 12 from the bottom, page 53, Record of Patents Delivered, marked plaintiff's exhibit No. 57 and appended hereto on sheet of exemplifications from said book.

Q. I have the original papers, four papers, marked plaintiff's exhibits, Nos. 58, 59, 60 and 61. Mr. Davis, you will please examine those four exhibits and state whether or not they are part of the files of your office?

99 A. Yes, sir; filed Jan. 1st, 1901.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being exhibit No. 58; Non-mineral affidavit signed by Thomas Snedden, being exhibit No. 59; Final Receiver's Receipt, being exhibit No. 60; Final Certificate of Register, being exhibit No. 61.

Same objection noted by defendant.

And the said exhibits, Nos. 58, 59, 60 and 61, are in words and figures as follows, to-wit:

100 Q. Now, Mr. Davis, I wish you would turn to your original entry book and exhibit the entry which bore final number, 790.

A. Original number, 2106. I will see if the description corresponds.

Q. It is the west half of the northwest quarter of section 20.

A. West half, of the northwest quarter of section 20-20-116.

Mr. Burke: Plaintiff now introduces in evidence line 20, bearing the appropriate number, 2106, of the Register of Homestead Receipts, together with the headline descriptive of the entry as thereon made.

Same objection noted by defendant.

Line 20, No. 2106, Register of Homestead Receipts, marked plaintiff's exhibit No. 62 and appended hereto on sheet of exemplifications from said book.

Q. You will kindly turn to your Tract Book and exhibit the entry as therein made relating to this matter.

A. The west half of the northwest quarter; here it is on this line.

Mr. Burke: Plaintiff now introduces in evidence line 26, on page 103 of Tract Book No. 22, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 26, page 103, Tract Book No. 22, marked plaintiff's exhibit No. 63 and appended hereto on sheet of exemplifica-
101 tions from said book.

Q. Now, will you turn to your Final Receipt record and exhibit the same entry as therein made?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line No. 1, under the appropriate number, 790, of the Register of Final Homestead Certificates.

Same objection noted by defendant.

Line No. 1, No. 790, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 64 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn now to your Patent Book, Mr. Davis, and exhibit the entry as therein made under this No. 790.
A. There is no date marked on here.

Mr. Burke: Plaintiff now introduces in evidence line 34, page 59, Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 34, page 59, Record of Patents Delivered, marked plaintiff's exhibit 65 and appended hereto on sheet of exemplifications from said book.

Q. I now hand you four papers which I have had marked plaintiff's exhibits Nos. 66, 67, 68 and 69. Mr. Davis, you may examine these papers and state as to whether or not they
102 are a part of the files of your office? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application signed by Thomas Snedden, being exhibit No. 66; paper designated Non-mineral Affidavit, signed by Thomas Snedden being exhibit 67; Final Receiver's Receipt, being exhibit 68, Final Register's Receipt, being exhibit No. 69.

Same objection noted by defendant.

And the said exhibits, Nos. 66, 67, 68 and 69, are in words and figures as follows, to-wit:

103 Q. Now, then, will you turn to your original entry book and to the entry therein made as to the entry bearing the final number, 733, and give the original number.
A. 733. This number is 1962, the original number.
Q. That is as to the west half of the southwest quarter of section 20? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence line No. 1, under the appropriate number, 1962, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line No. 1, entry number 1962, Register of Homestead Receipts, marked plaintiff's exhibit No. 70 and appended hereto on sheet of exemplifications from said book.

Q. Now, will you turn to your Tract Book and exhibit the entry as therein made as to this same matter?
A. The west half of the southwest quarter; here we are.

Mr. Burke: Plaintiff now introduces in evidence line 24 on page 103 of Tract Book No. 22, together with the head line explanatory of the entry as therein made.

Same objection noted by defendant.

Line 24, page 103, Tract Book No. 22, marked plaintiff's exhibit No. 71 and appended hereto on sheet of exemplifications from said book.

104 Q. You may turn to your Final Receipt Book, and to this entry? A. Here you are.

Mr. Burke: Plaintiff now introduces in evidence line No. 1, under the appropriate number, 733, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection as noted by defendant.

Line No. 1, No. 733, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 72 and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to your patent book and to the entry made therein under this same number. A. Here you are.

Mr. Burke: Plaintiff now introduces in evidence line 13, page 54, record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 13, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 73 and appended hereto on sheet of exemplifications from said book.

Q. Now, have you in your office any record showing the existence at one time, as having been in your office, of the ap-

plication, the non-mineral affidavit, and the granting of the patent in this entry?

105 A. We have this Honorable Commissioner's letter "C", dated October 30th, 1900.

Q. Is that the Commissioner of the General Land Office?

A. Yes, sir. It acknowledges the receipt of a non-mineral affidavit and the application of one Thomas Snedden to the west half of the southwest quarter of section 20, township 20 north, range 116.

Letter marked exhibit No. 74.

Mr. Burke: Plaintiff now offers in evidence paper marked exhibit No. 74, being the letter of the Honorable Commissioner of the General Land Office, under date Oct. 30th, 1900.

Mr. Kelley: In addition to the other objection, defendant makes the objection to this letter marked exhibit No. 74, that it is incompetent, immaterial and irrelevant for any purpose; it merely appears to be a letter signed by the Commissioner of the General Land Office, narrating certain of the proceedings had in connection with this application. None of the statements contained therein are anything more than hearsay.

Mr. Burke: Will you stipulate that an application and a non-mineral affidavit were filed in this entry as in the others?

Mr. Kelley: I dont think there is any question about that.

Mr. Burke: Will you stipulate that. We can not find those papers.

106 Mr. Kelley: We made the suggestion that the pleadings covered that, and that we were ready to enter into an agreement with reference to all of these entries, and unless we can do that, we will make no further stipulation or agreement than what is contained in the pleadings.

Q. Mr. Davis, will you kindly turn to your original entry book and exhibit the entry as therein made as to the patent bearing the final unmber, 746?

A. 1992. Here you are.

Mr. Burke: Plaintiff now introduces in evidence line 12, under the appropriate number, 1992, of the Register of Homestead Receipts, together with the headline explanatory of the entry as therein made.

Same objection noted by defendant.

Line 12, No. 1992, Register of Homestead Receipts, marked plaintiff's exhibit No. 75, and appended hereto on sheet of exemplifications from said book.

Q. Kindly turn to your Tract Book and exhibit the entry as therein made in relation to this same matter.

A. There you have it, the southeast quarter of the northwest quarter and the northwest quarter of the southwest quarter. Here it is.

Mr. Burke: Plaintiff now introduces in evidence line 22 of page 103 of Tract Book No. 22, together with the headline explanatory of the entry as thereon made.

107 Same objection noted by defendants.

Line 22, page 103, Tract Book No. 22, marked plaintiff's exhibit No. 76 and appended hereto on sheet of exemplifications from said book.

Q. Now, will you kindly turn to the same entry as made in the Final Receipt Book?

A. Yes, here you are, No. 746.

Mr. Burke: Plaintiff now introduces the fifth line, under the appropriate number, 746, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 5, No. 746, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 77, and appended hereto on sheet of exemplifications from said book.

Q. You may now turn to your Patent Book and exhibit the entry as therein made as to this same matter.

A. 746, here it is.

Mr. Burke: Plaintiff now introduces line 19, page 54, Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 19, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 78, and appended hereto on sheet
108 of exemplifications from said book.

Q. I hand you now five papers, which I have had marked plaintiff's exhibits 79, 80, 81, 82 and 83, and you may state, Mr. Davis, whether or not you identify those as part of the records of your office? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being exhibit No. 79; paper marked exhibit No. 80, paper designated Non-mineral Affidavit, signed by Thomas Snedden, marked ex-

hibit No. 81; Final Receiver's Receipt, marked exhibit No. 82; Final Certificate of Register, marked exhibit No. 83:

Same objection noted by defendant.

And the said exhibits, Nos. 79, 80, 81, 82 and 83 are in words and figures as follows, to-wit:

109 Q. Mr. Davis, you will please turn to your original entry book and exhibit the entry therein made which finally bore the entry number, 754, and state the original entry number. A. 2003.

Q. See if that is the right description; west half of the northwest quarter of section 30.

A. It is lot 1 and 2 here. What did you want here, 743?

Q. 754. A. Well, that is lots 1 and 2.

Mr. Burke: Plaintiff now introduces in evidence line 11, under the appropriate number, 2003, of the Register of Homestead Receipts, together with the headline explanatory of the entry as therein made.

Same objection noted by defendant.

Line 11, No. 2003 of Register of Homestead Receipts, marked plaintiff's exhibit No. 84, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract book and exhibit the entry therein made as relating to this matter. A. Here we are.

Mr. Burke: Plaintiff now introduces in evidence line 4 from the bottom of page 106, Tract Book No. 22, together with the headline explanatory of the entry as therein made.

Same objection noted by defendant.

Line 4 from the bottom, page 106, Tract Book 22, marked
110 plaintiff's exhibit No. 85, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Final Receipt Book and to the entry as therein made of this same matter.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 7, under the appropriate number, 754, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 7, No. 754, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 86, and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to your Patent Book and exhibit the entry as to this same matter.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 15, on page 55 of the Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 15, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 87, and appended hereto on the sheet of exemplifications from said book.

Q. I hand you four papers which I have had marked plaintiff's exhibits 88, 89, 90 and 91. Mr. Davis, you may
111 examine these four papers and state whether or not you identify them as part of the files of your office?
A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, being exhibit 88; paper designated Non-mineral Affidavit, being exhibit No. 89; paper entitled Final Receiver's Receipt, being exhibit No. 90; and paper entitled Final Certificate of Register, being exhibit No. 91.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 88, 89, 90 and 91, are in words and figures as follows, to-wit:

112 Q. Mr. Davis, will you return to your original entry book and exhibit the entry as therein made relating to the entry bearing No. 718, and give the original entry number?
A. 1932.

Plaintiff now introduces in evidence line 7 bearing the appropriate number, 1932, Register of Homestead Receipts, together with the headline explanatory as thereon made.

Same objection noted by defendant.

Line 7, No. 1932, Register of Homestead Receipts, marked plaintiff's exhibit No. 92, and appended hereto on sheet of exemplifications from said book.

Q. Turn to your Tract Book and exhibit the entry as therein made pertaining to this matter.
A. East half of the southwest quarter; here we are.

Mr. Burke: Plaintiff now introdu s in evidence line 11 from the bottom of page 106 of Tract B 22, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 11 from the bottom, page 106, Tract Book No. 22, marked plaintiff's exhibit No. 93, and appended hereto on sheet of exemplifications from said book.

Q. Will you now turn to your final receipt book and exhibit the entry therein made as to this matter.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces line 7, No. 718,
113 of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 7, No. 718, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 94, and appended hereto on sheet of exemplifications from said book.

Q. I will ask you to turn to your Patent Book and exhibit the entry therein made in relation to this matter.

A. Here we are.

Mr. Burke: Plaintiff now introduces line 21 from the bottom, page 53, Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 21 from the bottom, page 53, Record of Patents Delivered, marked plaintiff's exhibit No. 95, and appended hereto on sheet of exemplifications from said book.

It was thereupon stipulated between the parties that as to the papers, being the original application, non-mineral affidavit, Receiver's Receipt and Final Certificate on this entry are not at hand, but that plaintiff can deliver them to the stenographer, when found, to be included in the record in this case as plaintiff's exhibits, Nos. 96, 97, 98 and 99, subject to the same general objection of counsel for defendant.

Said plaintiff's exhibits, Nos. 96, 97, 98 and 99, are in words and figures as follows, to-wit:

114 Q. Mr. Davis, will you return to your original entry book and exhibit the entry as therein made in relation to the entry bearing the final number, 758, and give the original number of the entry? A. 2017.

Mr. Burke: Plaintiff now introduces in evidence line 3, under the appropriate number, 2017, relating to the north half of the northeast quarter and the northeast quarter of the northwest quarter of section 30, township 20, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line No. 3, No. 2017, Register of Final Homestead Receipts, marked plaintiff's exhibit No. 100, and appended hereto on sheet of exemplifications from said book.

Q. Will you kindly turn to your Tract Book and exhibit the entry as therein made in relation to this same matter?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 8 from the bottom, on page 106, of Tract Book No. 22, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 8 from the bottom, page 106, Tract Book No. 22, marked plaintiff's exhibit No. 101, and appended hereto on sheet of exemplifications from said book.

115 Q. Now, turn to your record of Final Receipts and exhibit the entry as therein made. A. No. 758.

Mr. Burke: Plaintiff now introduces in evidence line 16, under the appropriate number, 758, of the Register of Final Homestead Certificates.

Same objection noted by defendant.

Line 16, No. 758, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 102, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your record of patents as to this number, 758, and give the entry as therein made?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 20 on page 55 of the Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 20, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 103, and appended hereto on sheet of exemplifications from said book.

Q. I now hand you papers marked plaintiff's exhibits, Nos. 104, 105, 106 and 107, four papers, and I ask you, Mr. Davis, as to whether or not you recognize these papers as part of the files of your office? A. Yes, sir.

116 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Danfle F. Harrison, marked plaintiff's exhibit No. 104; paper designated Non-mineral Affidavit, signed by Danile F. Harrison, marked plaintiff's exhibit No. 105; Final Receiver's Receipt, marked plaintiff's exhibit No. 106; Final Certificate of Register, marked plaintiff's exhibit No. 107.

Same objection noted by defendant.

Whereupon further hearing was adjourned until 1-30 P. M. of this day.

And said exhibits, Nos. 104, 105, 106 and 107, are in words and figures as follows, to-wit:

117 Wednesday, Jan. 22nd, 1908, 1-30 P. M.

Examination of Thomas V. Davis, resumed:
By Mr. Burke:

Q. Mr. Davis, will you turn to your original entry book and show the entry made therein as to the entry bearing the final number, 1139, and give the original entry number.
A. 2729 is the original number.

Mr. Burke: Plaintiff now introduces in evidence line 20, under the record number, 2729, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 20, No. 2729, Register of Homestead Receipts, marked plaintiff's exhibit No. 108 and appended hereto on sheet of exemplifications from said book.

Q. We will now turn to your Tract Book and exhibit the entry as made relating to the same matter.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 8 from the bottom on page 106, Tract Book No. 22, together with the headline explanatory as to the entry as thereon made.

Same objection noted by defendant.

Line 8 from the bottom, page 106, Tract Book No. 22,
118 marked plaintiff's exhibit No. 109, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Final Receipt Book and exhibit the entry therein made of this matter?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line No. 7, under entry number 1139, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line No. 7, entry No. 1139, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 110, and appended hereto on sheet of exemplifications from said book.

Q. Please turn to the entry of this matter as found in your Patent Record. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 18 from the bottom on page 66 of the Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 18 from the bottom, page 66, Record of Patents Delivered, marked plaintiff's exhibit No. 111, and appended hereto on sheet of exemplifications from said book.

Q. I hand you four original papers, which I have had marked plaintiff's exhibits, Nos. 112, 113, 114 and 115, and I ask you if you recognize these papers as part of the
119 files of your office? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed Thomas Snedden, being plaintiff's exhibit No. 112; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being plaintiff's exhibit No. 113; Receiver's Receipt, being plaintiff's exhibit No. 114; and Final Certificate of Register, being plaintiff's exhibit 115.

Same objection noted by defendant.

And said plaintiff's exhibits, Nos. 112, 113, 114 and 115, are in words and figures as follows, to-wit:

120 Q. Mr. Davis, will you turn to your original entry book and find the entry as therein made as to the entry bearing final number 755, and give the original entry number.
A. Original number, 2011; here it is.

Mr. Burke: Plaintiff now introduces in evidence line 12 from the bottom, bearing the original number, 2011, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 12 from the bottom, No. 2011, Register of Homestead Receipts, marked plaintiff's exhibit No. 116, and appended hereto on sheet of exemplifications from said book.

Q. Will your now turn to your Tract Book and exhibit the entries as therein made as to the same matter.

A. There is forty acres of it on this line here, and then the other part of it is in section 30.

Mr. Burke: Plaintiff now introduces in evidence line 5 from the bottom on page 86 of Tract Book No. 22, and also line 3 from the bottom on page 106 of the same record, together with the headlines explanatory of the entries as thereon made.

Same objection noted by defendant.

Line 5 from the bottom on page 86 of Tract Book No. 22, marked plaintiff's exhibit No. 117, and line 3 from the bottom on page 106 of the same record, marked plaintiff's exhibit No. 118, and appended hereto by sheet of exemplifications
121 from said book.

Q. Now, the Final Receipt Book.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence lines 9 and 10 under No. 755, in the Register of Final Homestead Certificates, together with the headline explanatory of the entries as thereon made.

Same objection noted by defendant.

Lines 9 and 10, entry No. 755, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 119, and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to the Patent Book, if you will, and the entry of this matter therein made. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 19 on page 56, Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 19, page 56, Record of Patents Delivered, marked plaintiff's exhibit No. 120, and appended hereto on sheet of exemplifications from said book.

Q. I hand you the original papers which I have had marked plaintiff's exhibits, Nos. 121, 122, 123 and 124, and ask you,

Mr. Davis, if you recognize these papers as being part
122 of the files of your office? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being plaintiff's exhibit No. 121; Non-mineral Affidavit, signed by Thomas Snedden, being plaintiff's exhibit No. 122; Final Receiver's Receipt, being exhibit No. 123 and Final Certificate of Register, being plaintiff's exhibit No. 124.

Same objection noted by defendant.

And said plaintiff's exhibits, Nos. 112, 113, 114 and 115, are are in words and figures as follows, to-wit:

123 Q. Now, Mr. Davis, I will ask you to turn to the entry bearing final entry number, 1015, as it is entered in the original entry book, and state the number which it there bears.

A. Original number, 2587. Here is 2587 in the original entry book.

Mr. Burke: Plaintiff now introduces in evidence line 11 from the bottom, bearing the original number, 2587, of the Register of Homestead Receipts, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 11 from the bottom, No. 2587, Register of Homestead Receipts, marked plaintiff's exhibit No. 125, and appended hereto on sheet of exemplifications from said book.

Q. Will you produce your Tract Book and the entry therein of this matter? A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 10 from the bottom on page 106 of Tract Book No. 22, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 10 from the bottom, page 106, Tract Book No. 22, marked plaintiff's exhibit No. 126, and appended hereto on sheet of exemplifications from said book.

Q. I will ask you to turn to the Final Receipt Book and
124 the record therein made of this entry.
A. No. 1015, yes, sir.

Mr. Burke: Plaintiff now introduces in evidence line 21, under the record number, 2587, of the Register's Final Homestead Certificates.

Same objection noted by defendant.

Line 21, No. 2587, Register's Final Homestead Certificates, marked plaintiff's exhibit No. 127, and appended hereto on sheet of exemplifications from said book.

Q. Now, will you turn to your Patent Record and exhibit the entry as made therein of this matter.
A. (Book Produced.)

Mr. Burke: Plaintiff now introduces in evidence line 18 on page 64 of the Record of Patents Delivered, together with the headline explanatory of the entry as thereon made.

Same objection noted by defendant.

Line 18, page 64, Record of Patents Delivered, marked plaintiff's exhibit No. 128, and appended hereto on sheet of exemplifications from said book.

Q. I hand you the original papers, which I have had marked plaintiff's exhibits, Nos. 129, 130, 131, 132 and 133. Will you state Mr. Davis, as to whether or not you recognize those papers as part of the files of your office, or as having been such?
A. Yes, sir.

125 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Daniel F. Harrison, being exhibit No. 129; paper designated Non-mineral Affidavit, signed by Daniel F. Harrison, being exhibit No. 130; paper designated Non-mineral Affidavit, signed by Daniel F. Harrison, being exhibit No. 131; Final Receiver's Receipt, being exhibit No. 132; and Final Register's Certificate, being exhibit No. 133.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 129, 130, 131, 132 and 133, are in words and figures as follows, to-wit:

126 Q. Mr. Davis, will you turn to the entry as made in the the original entry book of your records, the final entry number being 720. A. Original number, 1934.

Mr. Burke: Plaintiff now introduces in evidence line No. 11, under entry number, 1934, of the Register of Homestead Receipts, together with the headline explanatory of the matter thereon entered.

Same objection noted by defendant.

Line 11, No. 1934, Register of Homestead Receipts, marked plaintiff's exhibit No. 134, and appended hereto on sheet of exemplifications from said book.

Q. Will you now turn to your Tract Book and to the entry therein made of this matter? A. 19-116, section 6.

Q. See if this is right; lots 1, 2 and 3, the north half of the northeast quarter and the northeast quarter of the northwest quarter of section 6.

A. It is described differently here, but it is the same.

Mr. Burke: Plaintiff now introduces in evidence line 12 from the bottom of page 86 of Tract Book No. 22, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 12 from the bottom, page 86, of Tract Book No. 22, marked plaintiff's exhibit No. 135 and appended hereto on sheet of exemplifications from said book.

127 Q. Will you turn to your Final Receipt Book and to the entry therein made of this matter.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 11, Register of Final Homestead Certificates, No. 720, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 11, No. 720, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 136, and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to your Patent Book and to the record therein made of this matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 5 on page 54 of the Record of Patents Delivered, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 5, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 137, and appended hereto on sheet of exemplifications from said book.

Q. I hand you the original papers, which I have had marked, plaintiff's exhibits, Nos. 138, 139, 140 and 141, and I ask you, Mr. Davis, whether or not you recognize these papers

128 as part of the files of your office or as having been such?

A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being marked exhibit No. 138; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being marked exhibit No.

139; paper being designated Final Receiver's Receipt, being marked exhibit No. 140; and paper designated Final certificate of Register, being marked exhibit No. 141.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 138, 139, 140 and 141 are in words and figures as follows, to-wit:

129 Q. Mr. Davis, will you turn to your original record as to the entry therein made of the entry bearing final number, 756, and give the original number of the entry.
A. 2012.

Mr. Burke: Plaintiff now introduces in evidence line 9 from the bottom, bearing the entry number 2012 of the Register of Homestead Receipts, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 9 from the bottom, No. 2012, Register of Homestead Receipts, marked plaintiff's exhibit No. 142, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and exhibit the entry made therein in relation to this matter?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 6 from the bottom on page 86 of Tract Book No. 22, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 6 from the bottom, page 86, Tract Book No. 22, marked plaintiff's exhibit No. 143, and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to your Final Receipt Record and to the entry therein made of this matter.
130 A. Here it is, 756.

Mr. Burke: Plaintiff now introduces in evidence line 12, under the appropriate number, 756, of the Register of Final Homestead Certificates, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 12, No. 756, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 144, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn now to your Patent Record and to the entry therein made in relation to this matter.
A. 756; here it is.

Mr. Burke: Plaintiff now introduces in evidence line 20 on page 56 of the Record of Patents Delivered, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 20, page 56, Record of Patents Delivered, marked plaintiff's exhibit No. 145, and appended hereto on sheet of exemplifications from said book.

Q. I have had these original papers marked plaintiff's exhibits, Nos. 146, 147, 148 and 149. I will ask you, Mr. Davis, whether you recognize these papers as part of the files of your office or not, or as having been such.
131 A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being marked plaintiff's exhibit No. 146; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being marked plaintiff's exhibit No. 147; paper designated Final Receiver's Receipt, being marked plaintiff's exhibit No. 148; paper designated Final Certificate of Register, being marked plaintiff's exhibit No. 149.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 146, 147, 148 and 149, are in words and figures as follows, towit:

132 Q. Mr. Davis, will you turn to your original record as to the entry which bore final number, 745?
A. Yes, sir; original number, 1991.
Q. Will you exhibit the entry as therein made?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 10, under entry No. 1991, of the Register of Homestead Receipts, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 10, entry No. 1991, Register of Homestead Receipts, marked plaintiff's exhibit No. 150, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and exhibit the entry as therein made of this matter?
A. (Book produced.)

Mr. Burke: Plaintiff now introduces line 10 from the bottom on page 86 of Tract Book No. 22, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 10 from the bottom, page 86, Tract Book No. 22, marked plaintiff's exhibit No. 151, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn now to your Final Receipt Record and exhibit the entry therein made of this matter?

133 A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 3, No. 745, Register of Final Homestead Certificates, together with the headline of the matter therein entered.

Same objection noted by defendant.

Line 3, No. 745, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 152, and appended hereto on sheet of exemplifications from said book.

Q. Will you now turn to your Record of Patents Delivered and to the entry of this matter as therein made.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 8 from the bottom, of page 53 of the Record of Patents Delivered, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 8 from the bottom, page 53, Record of Patents Delivered, marked plaintiff's exhibit No. 153, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 154, 155, 156 and 157. I will ask you Mr. Davis, whether you recognize these four exhibits as being or having been a part of the records of your office?

A. Yes, sir.

134 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed Thomas Snedden, being marked exhibit No. 154; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being marked plaintiff's exhibit No. 155; paper designated Final Receiver's Receipt, being marked plaintiff's exhibit No. 156; paper designated Final Certificate of Register, being marked plaintiff's exhibit No. 157.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 154, 155, 156 and 157, are in words and figures as follows, to-wit:

135 Q. Mr. Davis, will you turn to the original entry book and exhibit the entry therein made as to the entry bearing final number, 748, and give the original number.
A. No. 1995.

Mr. Burke: Plaintiff now introduces in evidence line 19, entry No. 1995, of the Register of Homestead Receipts, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 19, entry No. 1995, Register of Homestead Receipts, marked plaintiff's exhibit No. 158, and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to the Tract Book and to the entry therein made on this same matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 9 from the bottom of page 86 of Tract Book No. 22, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 9 from the bottom, page 86, Tract Book No. 22, marked plaintiff's exhibit No. 159, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the Final Receipt Record and to the entry therein made in relation to this matter.
A. No. 748.

136 Mr. Burke: Plaintiff now introduces in evidence line No. 9, under entry No. 748, in the Register's final Homestead Certificate record.

Same objection noted by defendant.

Line 9, No. 748, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 160, and appended hereto on sheet of exemplifications from said book.

Q. Will you produce your Patent Record as to this matter?
A. No. 748. Here it is.

Mr. Burke: Plaintiff now introduces in evidence line 23, on page 54 of the Record of Patents Delivered, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 23, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 161, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 162, 163, 164 and 165. I will ask you, Mr. Davis, if you recognize these papers or not as being or having been part of the files of your office? A. Yes, sir.

137 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being marked plaintiff's exhibit No. 162; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being marked plaintiff's exhibit No. 163; Final Receiver's Receipt, being marked plaintiff's exhibit No. 164; Final Certificate of Register, being marked plaintiff's exhibit, No. 165.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 162, 163, 164 and 165 are in words and figures as follows, to-wit:

138 Q. I will ask you to turn to original record as to the entry bearing final number, 749, and exhibit the entry therein made, and state the original number.

A. Original number, 1996.

Mr. Burke: Plaintiff now introduces in evidence line 21, entry number, 1996, of the Register of Homestead Receipts, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 21, entry No. 1996, Register of Homestead Receipts, marked plaintiff's exhibit No. 166, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the entry as made in your Tract Book, covering this same entry. A. (Book produced.)

Mr. Burke: Plaintiff introduces in evidence line 8 from the bottom on page 86 of Tract Book No. 22, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 8 from the bottom, page 86, Tract Book No. 22, marked plaintiff's exhibit No. 167, and appended hereto on sheet of exemplifications from said book.

Q. Now, turn to your Final Receipt Record wherein this matter is recorded. A. (Book produced.)

139 Mr. Burke: Plaintiff now introduces in evidence line 11, entry No. 749, of the record of Final Homestead Certificates, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 11, entry No. 749, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 168, and appended hereto on sheet of exemplifications from said book.

Q. Turn to your record of Patents Delivered and to the entry therein made of this matter. A. Jan. 29th, 1901.

Mr. Burke: Plaintiff now introduces in evidence line 25 on page 54 of the record of Patents Delivered, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 25, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 169, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits Nos. 170, 171, 172 and 173. I will ask you, Mr. Davis, as to whether you recognize those as being or having been a part of the files of your office? A. Yes, sir.

140 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being marked plaintiff's exhibit No. 170; paper designated Nonmineral Affidavit, signed by Thomas Snedden, being marked plaintiff's exhibit No. 171; paper designated Final Receiver's Receipt, being marked plaintiff's exhibit No. 172; and paper designated Final Certificate of Register, being marked plaintiff's exhibit No. 173.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 170, 171, 172 and 173, are in words and figures as follows, towit:

141 Q. Mr. Davis, will you turn to the entry made in the original entry book bearing the final number, 750.
A. Original number, 1997.

Mr. Burke: Plaintiff now introduces in evidence line 23, under entry number, 1997, of the Register of Homestead Receipts, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 23, entry No. 1997, Register of Homestead Receipts, marked plaintiff's exhibit No. 174 and appended hereto on sheet [if] exemplifications from said book.

Q. Turn to the Tract Book, Mr. Davis, if you will, and exhibit the entry made therein of this matter.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 7 from the bottom on page 86 of Tract Book No. 22, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 7 from the bottom, page 86, Tract Book No. 22, marked plaintiff's exhibit No. 175, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the Final Receipt Book and to the entry therein made as to this same matter.
A. (Book produced.)

142 Mr. Burke: Plaintiff now introduces in evidence line 13, entry No. 750, of the Register of Final Homestead Certificates, together with the headline explanatory of the matter therein entered.

Same objection noted by defendant.

Line 13, entry No. 750, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 176, appended hereto on sheet of exemplifications from said book.

Q. Turn to your record of patents Delivered, Mr. Davis, and to the entry therein made of this matter, patented July 9th, 1901. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 27 on page 54 of the record of Patents Delivered, together with the headlines explanatory of the matter entered therein.

Same objectoin noted by defendant.

Line 27, page 54, Record of Patents Delivered, marked plaintiff's exhibit No. 177, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 178, 179, 180 and 181. I will ask you, Mr. Davis, if your recognize these papers as having been part of the records of your office or not? A. Yes, sir.

143 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being plaintiff's exhibit No. 178; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being marked plaintiff's exhibit No. 179; Receiver's Receipt, being marked plaintiff's exhibit No. 180; Final Certificate of Register, being marked plaintiff's exhibit No. 181.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 178, 179, 180 and 181, are in words and figures as follows; to-wit:

144 Q. I will ask you, Mr. Davis, to turn to your original record entry of the entry bearing final number, 753, and give its original number. A. 2002.

Mr. Burke: Plaintiff now offers in evidence line 9, under entry No. 2002, of the Register of Homestead Receipts, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 9, entry No. 2002, Register of Homestead Receipts, marked plaintiff's exhibit No. 182, and appended hereto on sheet of exemplifications from said book.

Q. Mr. Davis, will you turn to your Tract Book and to the entry of this matter as it therein appears.
A. There is the entry of it.

Mr. Burke: Plaintiff now introduces in evidence line 10 from the bottom of page 90 of Tract Book No. 22, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 10 from the bottom, page 90, Tract Book No. 22, marked plaintiff's exhibit No. 183 and appended hereto on sheet of exemplifications from said book.

Q. Turn to your Final Receipt book and to the record therein made of this matter. A. (Book produced.)

145 Mr. Burke: Plaintiff now introduces in evidence line 5, under entry No. 753, of the Register of Final Homestead Certificates, together with the headline explanatory of the entry therein made.

Same objection noted by defendant.

Line 5, entry No. 753, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 184, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Record of Patents Delivered and to the entry therein made in relation to this matter?
A. Here you are.

Mr. Burke: Plaintiff now introduces in evidence line 13 on page 55 of the Record of Patents Delivered, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 13, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 185, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 186 and 187. You may state, Mr. Davis, as to whether or not you recognize those papers as having been part of the files of your office? A. Yes, sir.

146 Mr. Burke: Plaintiff now introduces in evidence paper designated, Final Receiver's Receipt, being marked plaintiff's exhibit No. 186; and paper designated Final Register's Certificate, being marked plaintiff's exhibit No. 187.

Same objection noted by defendant.

Q. I hand you a letter, Mr. Davis, which I have marked plaintiff's exhibit No. 188, and ask you whether you recognize that letter as part of the files of your office? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence letter, signed by the Hon. Commissioner of the Land Office, Binger Hermann, of date Jan. 30th, 1901, being marked plaintiff's exhibit No. 188.

Mr. Kelley: In addition to the general objection, we make the same additional objection to this as was made to plaintiff's exhibit No. 74.

And the said plaintiff's exhibits, Nos. 186, 187 and 188, are in words and figures as follows, to-wit:

147 Q. Will you turn to the entry in your original book of entry of the matter that finally bore the number 780, giving the original number. A. Original number, 2077.

Mr. Burke: Plaintiff now introduces in evidence line 19, under entry No. 2077, of the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 19, entry No. 2077, Register of Homestead Receipts, marked plaintiff's exhibit No. 189, appended hereto on sheet of exemplifications from said book.

Q. You may turn to your Tract book, Mr. Davis, and to the entry of this same matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 12 from the bottom of page 90 of Tract Book No. 22, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 12 from the bottom, page 90, Tract Book No. 22, marked plaintiff's exhibit No. 190, and appended hereto on sheet of exemplifications from said book.

Q. Turn to the record of Homestead Certificates, entry No. 780.

A. (Book produced.)

148 Mr. Burke: Plaintiff now introduces in evidence line 13, entry No. 780 of the Register of Final Homestead Certificates, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 13, entry No. 780, Register of Final Homestead Certificates, marked as plaintiff's exhibit No. 191 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the Register of Patents Delivered and to the entry of this matter therein. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 29 on page 55 of the Record of Patents Delivered, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 29, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 192, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 193, 194, 195 and 196. I will ask you Mr. Davis, to examine these papers and state as to whether or not they are part of the files of your office or have been such.

A. Yes, sir.

149 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being plaintiff's exhibit No. 193; paper designated Non-mineral

Affidavit, signed by Thomas Snedden, being plaintiff's exhibit 194; Final Receiver's Receipt, being plaintiff's exhibit 195; Final Certificate of Register, being plaintiff's exhibit 196.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 193, 194, 195 and 196, are in words and figures as follows, to-wit:

150 Q. Mr. Davis, will you return to your original record and to the entry that finally bore No. 751, and give the original entry number. A. 751, the original number is 2000.

Mr. Burke: Plaintiff now introduces in evidence line 5, under the original entry number, 2000, in the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 5, original entry No. 2000, Register of Homestead Receipts, marked plaintiff's exhibit No. 197, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and to the entry made therein in relation to this matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 7 from the bottom on page 88 of Tract Book No. 23, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 7 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 198, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your record of Final Homestead Certificates and to the matter of this entry therein.

151 A. No. 751.

Mr. Burke: Plaintiff now introduces in evidence line 1, entry No. 751, of Final Homestead Certificate Record, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line No. 1, entry No. 751, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 199, and appended hereto on sheet of exemplifications from said book.

Q. Turn to your Record of patents Delivered and to this matter as recorded therein. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 9 on page 55 of Record of patents Delivered, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 9, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 200, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 201, 202, 203 and 204. I will ask you Mr. Davis, as to whether you recognize these papers as being or having been part of the files of your office? A. Yes, sir.

152 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Thomas Snedden, being plaintiff's exhibit No. 201; paper designated Non-mineral Affidavit, signed by Thomas Snedden, being plaintiff's exhibit No. 202; Final Receiver's Receipt, being plaintiff's exhibit No. 203; and Final Certificate of Register, being plaintiff's exhibit No. 204.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 201, 202, 203 and 204, are in words and figures as follows, to-wit:

153 Q. Mr. Davis, will you turn to your original record of the entry bearing final number, 715, and give the original number of the entry. A. Original number, 1929.

Mr. Burke: Plaintiff now introduces in evidence line 1, under original entry, 1929, of the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 1, entry No. 1929, Register of Homestead Receipts, marked plaintiff's exhibit No. 205, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and to the entry therein made of this matter.

A. That is it, 12-19-117. The original number of that is 1929. Here you are.

Mr. Burke: Plaintiff now introduces in evidence line 13 from the bottom on page 88 of Tract Book No. 23, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 13 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 206, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your record of Final Receipts.
154 A. No. 715.

Mr. Burke: Plaintiff now introduces in evidence line No. 1, entry No. 715, of the Register of Final Homestead Certificates, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line No. 1, entry No. 715, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 207 and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Register of Patents Delivered and to the record of this matter as it appears therein.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 9 from the bottom on page 53 of the Record of Patents Delivered, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 9 from the bottom, page 53, Record of Patents Delivered, marked plaintiff's exhibit No. 208, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 209, 210, 211 and [211]. I will ask you, Mr. Davis, as to whether you recognize these papers as being or having been part of your files? A. Yes, sir.

155 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 209; also paper designated Non-mineral Affidavit, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 210; also Final Receiver's Receipt, being marked plaintiff's exhibit No. 211; also Final Certificate of Register, being marked plaintiff's exhibit No. 212.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 209, 210, 211 and 212, are in words and figures as follows, to-wit:

156 Q. Mr. Davis, will you turn to the original entry as made in your records of the entry that bore final number 717, and give its original number. A. 1931.

Mr. Burke: Plaintiff now introduces in evidence line 5, under the original entry No. 1931, of the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 5, entry No. 1931, Register of Homestead Receipts, marked plaintiff's exhibit No. 213, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the Tract Book, and to the entry therein made of this matter? A. Yes, sir, 1931.

Mr. Burke: Plaintiff now introduces in evidence line 11 from the bottom of page 88, Tract Book No. 23, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 11 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 214, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your record of Final Homestead Certificates and to the record of this matter as it appears therein.

157 A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 5 from the top entry No. 717, Register of Final Homestead Certificates, together with the headline explanatory of the matter as recorded therein.

Same objection noted by defendant.

Line 5 from the top, entry No. 717, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 215, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Register of Patents Delivered.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 1 on page 54 of the Record of Patents Delivered, together with the headline explanatory of the matter entered therein.

Same objection noted by defendant.

Line 1, page 54, Record of patents Delivered, marked plaintiff's exhibit No. 216, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 217, 218, 219 and 220. I will ask you, Mr. Davis,

to examine these papers and state whether or not they have been part of the files of your office? A. Yes, sir.

158 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Daniel F. Harrison, being plaintiff's exhibit No. 217; paper designated Non-mineral Affidavit, signed by Daniel F. Harrisons, being plaintiff's exhibit No. 218; Final Receiver's Receipt, being plaintiff's exhibit No. 219; and Final Certificate of Register, being plaintiff's exhibit No. 220.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 217, 218, 219 and 220, are in words and figures as follows, to-wit:

159 Q. Mr. Davis, will you turn to the entry in your original entry book which finally bore entry No. 760, and state the original number. A. Original number, 2020.

Mr. Burke: Plaintiff now introduces in evidence line 6, under entry No. 2020, of the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 6, entry No. 2020, Register of Homestead Receipts, marked plaintiff's exhibit No. 221, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and to the entry therein made of this matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 8 from the bottom on page 88 of Tract Book No. 2, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 8 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 222, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the Register of Final Homestead Certificates and to this matter as therein recorded.

160 A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 5, under entry No. 760, of the Register of Final Homestead Certificates, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 5, entry No. 760, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 223, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Record of Patents Delivered and to this matter as therein recorded.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 21 on page 55 of the Record of Patents Delivered, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 21, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 224, appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 225, 226, 227 and 228. I will ask you, Mr. Davis, if you recognize these four papers as part of the files of your office, or as having been so? A. Yes, sir.

161 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 225; paper designated Non-mineral Affidavit, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 226; Final Receiver's Receipt, being marked plaintiff's exhibit No. 227; Final Certificate of Register, being marked plaintiff's exhibit No. 228.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 225, 226, 227 and 228, are in words and figures as follows, to-wit:

162 Q. Mr. Davis, will you turn to the entry as made in your original book of entries which bore the final number, 752, and give us the original number.
A. Original number, 2001.

Mr. Burke: Plaintiff now introduces in evidence line 7, under entry No. 2001, of the Register of Homestead Receipts, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 7, entry No. 2001, Register of Homestead Receipts, marked plaintiff's exhibit No. 229 and appended hereto on sheet of exemplifications from said book.

Q. You will turn to your Tract Book and to the entry therein made of this matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 6 from the bottom, on page 88 of Tract Book No. 23, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 6 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 230, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Final Receipt Book and to the entry therein made of this matter.
A. (Book produced.)

163 Mr. Burke: Plaintiff introduces in evidence line 3, entry No. 752, of the Register of Final Homestead Certificates, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 3, entry No. 752, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 231, and appended hereto on sheet of exemplifications from said book.

Q. Turn to your Record of Patents Delivered and to the entry of this matter as therein recorded.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 11 on page 55 of the Record of Patents Delivered, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 11, page 55, Record of Patents Delivered, marked plaintiff's exhibit No. 232, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 233, 234, 235 and 236. I will ask you, Mr. Davis, whether or not you recognize these papers as being part of the files of your office or having been so. A. Yes, sir.

164 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed Thomas Snedden, being plaintiff's exhibit No. 2335 paper designated non-mineral Affidavit, signed Thomas Snedden, being marked plaintiff's exhibit 234; Final Receiver's Receipt, being marked plaintiff's exhibit No. 235; Final Certificate of Register, being marked plaintiff's exhibit No. 236.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 233, 234, 235 and 236, are in words and figures as follows to-wit:

165 Q. I will ask you, Mr. Davis, to turn to your original record as to the entry that bore final number, 716, and give the original number of the entry.
A. Original number, 1930.

Mr. Burke: Plaintiff now introduces in evidence line 3, under original entry No. 1930, Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 3, entry No. 1930, Register of Homestead Receipts, marked plaintiff's exhibit No. 237, and appended hereto on sheet of exemplifications from said book.

Q. Please turn to your Tract Book and to this matter as therein entered.
A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 12 from the bottom of page 88 of Tract Book No. 23, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 12 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 238, and appended hereto on sheet of exemplifications from said book.

Q. Will you please turn to your record book of Final Homestead Certificates and to this matter as recorded therein.
166 A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 3, entry No. 716, Register of Final Homestead Certificates, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 3, entry No. 716, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 239, appended hereto on sheet of exemplifications from said book.

Q. Turn to your book of Patents Delivered?
A. No. 716.

Mr. Burke: Plaintiff now introduces in evidence line 7 from the bottom of page 53 of the Record of Patents Delivered,

together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 7 from the bottom, page 53, Record of Patents Delivered, marked plaintiff's exhibit No. 240, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits Nos. 241, 242, and 243. Will you examine these three papers, Mr. Davis, and state whether or not they are part of the files of your office or have been?

167 A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Non-mineral Affidavit, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 241; Final Receiver's Receipt, being marked plaintiff's exhibit No. 242; and Final Certificate of Register, being marked plaintiff's exhibit No. 243.

Same objection noted by defendant.

It was then and there stipulated and agreed between the parties to this action that the complainant may produce, and have the stenographer include, the original application. to be given the exhibit number, 244, when found, subject to the objections heretofore entered by counsel for the defendant.

And the said plaintiff's exhibits, Nos. 241, 242, 243 and 244, are in words and figures as follows, to-wit:

168 Q. Mr. Davis, will you look in your book of original entry for the entry which finally bore number, 886, and give the original number of the entry.

A. The original entry number was 2386.

Mr. Burke: Plaintiff now introduces in evidence line 4, under original entry number, 2386, of the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 4, entry No. 2386, Register of Homestead Receipts, marked plaintiff's exhibit No. 245, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Tract Book and to the entry therein made of this matter.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 4 from the bottom on page 88 of Tract Book No. 23, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 4 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 246, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to the Register of Final Homestead Certificates, and to this matter as therein recorded, No.
169 886, isn't it? A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence line 1, under entry No. 886, of the Register of Final Homestead Certificates, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 1, entry No. 886, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 247, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Register of Patents Delivered and to this matter as it might appear of record therein.
A. Here you are.

Mr. Burke: Plaintiff now introduces in evidence line 20 from the bottom on page 62 of the Record of Patents Delivered, together with the headline explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 20 from the bottom, page 62, Record of Patents Delivered, marked plaintiff's exhibit No. 248, and appended hereto on sheet of exemplifications from said book.

Q. I have had the original papers marked plaintiff's exhibits, Nos. 249, 251 and 252. I will ask you, Mr. Davis, whether or not you identify these papers as part of the files of your office, or having been so?
170 A. Yes, sir.

Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 249; Final Receiver's Receipt, being marked plaintiff's exhibit No. 251; Final Certificate of Register, being marked plaintiff's exhibit No. 252.

Same objection noted by defendant.

It was then and there stipulated and agreed between the parties hereto that the Non-mineral Affidavit, if one is found, may be handed to the Master and included in the report as plaintiff's exhibit No. 250, subject to the objections heretofore entered by counsel for the defendant.

And the said plaintiff's exhibits, Nos. 249, 250, 251 and 252, are in words and figures as follows, to-wit:

171 Q. Now, Mr. Davis, will you turn to the entry which finally bore the number, 822, and give the original number of said entry. A. The original number is 2240.

Mr. Burke: Plaintiff now introduces in evidence line 22, under the original entry number, 2240, of the Register of Homestead Receipts, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 22, entry No. 2240, Register of Homestead Receipts, marked plaintiff's exhibit No. 253, and appended hereto on sheet of exemplifications from said book.

Q. Please turn to the Tract Book and to the entry therein made of this matter. A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 5 from the bottom on page 88 of Tract Book No. 23, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 5 from the bottom, page 88, Tract Book No. 23, marked plaintiff's exhibit No. 254, and appended hereto on sheet of exemplifications from said book.

Q. Will you please turn to your Record of Homestead Certificates and to the entry therein made as to this matter.

172 A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 1, under entry number, 822, as it appears of record in the Register of Final Homestead Certificates.

Same objection noted by defendant.

Line 1, entry No. 822, Register of Final Homestead Certificates, marked plaintiff's exhibit No. 255, and appended hereto on sheet of exemplifications from said book.

Q. Will you turn to your Record of Patents Delivered and to the entry made therein of this matter.

A. (Book produced.)

Mr. Burke: Plaintiff now introduces in evidence line 5 on page 59 of the Record of Patents Delivered, together with the headline explanatory of the matter recorded therein.

Same objection noted by defendant.

Line 5, page 59, Record of Patents Delivered, marked plaintiff's exhibit No. 256, and appended hereto on sheet of exemplifications from said book.

A. I have had the original papers marked plaintiff's exhibits, Nos. 257, 258, 259 and 260. I will ask you, Mr. Davis, whether you recognize these papers as part of the files of your office or having been so? A. Yes, sir.

173 Mr. Burke: Plaintiff now introduces in evidence paper designated Application, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 257; paper designated Non-mineral Affidavit, signed by Daniel F. Harrison, being marked plaintiff's exhibit No. 258; Final Receiver's Receipt, being marked plaintiff's exhibit No. 259; And Final Certificate of Register, being marked plaintiff's exhibit No. 260.

Same objection noted by defendant.

And the said plaintiff's exhibits, Nos. 257, 258, 259 and 260, are in words and figures as follows, to-wit:

174 Q. You state, Mr. Davis, that your records also consist of plats? A. Yes, sir.

Q. Will you produce the plats to townships 18, 19, 20 and 21 north in range 116 west of the 6th principal meridian, and also plats of townships 18, 19 and 20 north in range 117 west of the 6th principal meridian.

A. Here is township 18-116.

Q. Will you explain the abbreviations as used on this plat, commencing in section 6, for instance, where you have cash coal 160. What does that mean?

Mr. Kelley: Defendant objects to this on the ground that it is irrelevant, immaterial and incompetent for any purpose in the case, for the reasons, first, that the plats are not evidence, and no statement upon the plat is or can be considered as evidence of any fact in controversy in this case; further, we object to any evidence with reference to the particular plat concerning which the witness is questioned, upon the ground that it is entirely immaterial, for the reason that no land in the township platted and concerning which the witness is now being questioned is in controversy in this action.

[A.] It was then and there stipulated and agreed between the parties to this action that, without the necessity of repeti-

tion, this objection will be considered as made to all evidence concerning this plat. A. Yes, sir; cash coal No. 160.

Q. What does that mean?

A. It means that it was purchased as cash coal. It is a
175 cash coal entry, where you pay the regular Government price for coal lands.

Q. What does the further abbreviation in there, C. D. S. 965, 968, mean?

A. C. D. S. means coal declaratory statement, one numbered 965 and one numbered 968. 968 was subject to 965.

Q. Those same abbreviations, only different in numbers, all through these plats, mean the same thing, do they?

A. Yes, sir.

Q. What do these abbreviations mean in this entry here; what is that?

A. H. E. 2607, that would be homestead entry, you see. Probably this could be entered with scrip, you understand, and entered under the homestead law as an additional homestead of 80 acres, probably, if you look it up in the record book. The Soldier's additional scrip would not be mentioned in the plat, but it is in the Tract Book.

Q. What does this say in brackets off here to the left, and what does that indicate—L. O. S. No. 4, cash coal 159.

A. It means that a portion of this entry is in the township west of this one, township 18 north, range 117, the township next west.

Q. And what would these abbreviations, U. P. Selection, mean?

Mr. Kelley: Of course, we understand that in a case of this character a considerable latitude is allowed before the Master in taking evidence, and I also appreciate that upon ordinary objections the Master or Examiner is without the power to make rulings. At the same time there is a rule of the
176 United States Supreme Court which prevents litigants from being unnecessarily harrassed by the introduction of irrelevant matter, and the Master is vested with the authority to rule out evidence of that kind. Now, I am not suggesting that, perhaps, under some statement that counsel may make, this may not be relevant evidence, further than my objection, but I wish to call the Master's attention to the fact that this inquiry is proceeding in connection with a township, no part of which is in controversy in this action, and it is inconceivable to me how any evidence can be material or relevant or can assist the Court hereafter in determining the issues in this case, when it is addressed to land that is not even

in controversy in this case and is not mentioned in any of the pleadings. Counsel may have some reason for introducing this, but merely offering evidence does not make it material, and unless there is some reason, of which I think we should be apprised before proceeding to take up time and encumber the record, I suggest that it would be a case in which the Master could very properly, and should rule out evidence of this character.

The Master: Do you mean, Mr. Kelley, that this plat does not involve any land that is in controversy?

Mr. Kelley: No. This plat is a plat of township No. 18 north, range 116 west. None of the entries which are involved in this case are in that township. Isn't that so, Mr. Burke?

Mr. Burke: I am not certain.

177 Mr. Kelley: I am quite certain.

Mr. Burke: I am certain it is right adjacent to them, however, and in relation to those matters about which I have made inquiries more particularly.

Mr. Kelley: All of the entries involved in this case are either in township 19 or township 20.

The Master: What is your theory, Mr. Burke?

Mr. Burke: The theory is that these entries—this township is right adjacent, and some of the entries here are in the immediate vicinity of the entries which are in controversy in this litigation, although not in the same township, and I simply want to get this explanation, so that the Court may officially know what these abbreviations mean upon these several township plats that I am going to offer in evidence. The Court may not know what U. P. means or what C. D. S. means or what cash coal means.

The Master: Why not take it up with some of the townships in which are lands which are involved?

Mr. Burke: Simply because these are immediately adjoining. It happens to be over the township lines, and the
178 other lands are immediately adjoining on the north and west. It is necessary to know what these lands are, as I want these maps introduced together with the adjoining townships through which this land is scattered, for the purpose of showing the general character of the land.

The Master: Of course, my understanding has been all along that the evidence was going to be taken subject to the objections, and the objections to be passed upon by the Court.

Mr. Burke: That is the rule of Court.

Mr. Kelley: That is the rule with reference to all ordinary objections but the rule of the United States Supreme Court, which is in force in our jurisdiction, gives the Master authority to shut out matter if it is scandalous, grossly impertinent or wholly irrelevant.

The Master: It will not be gone into with the other maps again?

Mr. Kelley: Certainly not, but my objection is not so much to the explanation of these designations, as it is that the evidence concerning this township is not relevant, anyway.

Mr. Burke: These are right adjoining townships to those which are involved, and I will go right over to the other township and show the relationship of them, and the desig-
179 nations are the same as on the other plats. I propose to introduce these township plats, together with the adjacent township plats.

Mr. Kelley: Your idea is that it is material as showing the general character of the land?

Mr. Burke: Yes, sir.

Mr. Kelley: We add to our other objection that it is incompetent, irrelevant and immaterial for the purpose for which counsel says he proposes to introduce the plat of township 18 north range 116 west. Of course, you have no doubt as to the fact, Mr. Burke, that it is incompetent under the decision of the Supreme Court of the United States?

Mr. Burke: No, no.

The Master: I think this is a matter that ought to be passed on by the Court.

Mr. Kelley: I want to say right now, that if this examination is to be prolonged by the character of evidence that has been offered today, we will ask to have the record certified and get some instructions from Judge Riner, in accordance with the rule.

Mr. Burke: Well, about ten minutes will close me up on this class of evidence, if you will let me go ahead.

180 The Master: It is understood that this evidence as to these designations and abbreviations applies to all other plats?

Mr. Burke: Yes, only differing in the numbers.

The Master: And that it is not to be gone into again?

Mr. Burke: No, sir.

Mr. Burke: Plaintiff offers in evidence plat of township 18 north, range 116 west of the 6th principal meridian, likewise plat of township 19 north, range 116 west of the 6th principal meridian likewise plat of township 20 north, range 116 west, 6th principal meridian; plat of township 21 north, range 116 west, 6th principal meridian; likewise plat of township 18 north, range 117 west of the 6th principal meridian; plat of township 19 north, range 117 west of the 6th principal meridian; plat of township 20 north, range 117 west on the 6th principal meridian.

Mr. Kelley: Those plats have not been produced yet.

The Witness: Here are the last three, but 21-116 is not here yet. Do you want it?

181 Mr. Kelley: I dont care about it.

Mr. Burke: I ask that the exemplifications, as made by the Receiver of the Land Office, be substituted for the plats in the record.

Mr. Kelley: Defendant objects to the offer in evidence of all plats except the plat of township No. 20 north, range 116 west, and the plat of township 19 north, range 116 west, upon the ground that they are incompetent, irrelevant and immaterial for any purpose in the case, no part of the premises in controversy being embraced within or forming any part of these townships; for the further reason as to all of the offered plats, that they are incompetent, irrelevant and immaterial for the purpose of determining any issue in the case, that they are not evidence of the character of the land embraced within the township lines, nor are the legends or markings upon these townships or the various subdivisions thereof any evidence as to the character of the land or as to what the character of the land was at the time when the respective entries which are involved in this suit were made.

Plats referred to marked plaintiff's exhibits, Nos. 261, 262, 263, 264, 265, 266, 267.

Mr. Burke: I now offer the original plats, and I will ask to have the exemplifications substituted, and I will bring in Mr. Foote, as soon as the exemplifications are ready, and have him identify them and explain the different colors.

182 Q. Mr. Davis, will you turn to the plat of township 20 north, range 116 west.

A. Here we are.
Q. Can you find homestead entry 733?
A. What section is it on?
Q. Section 20. Is it designated in there?
A. There it is, I think.
Q. Can you tell by the designations there as to whether that eighty acres had been previously entered, or a declaratory statement made in relation thereto?
A. No, not right away.
Q. Well, you may go to your record, if you have one, of declaratory statements.

Mr. Kelley: What eighty acres is that, please?

Mr. Burke: It is the west half of the southwest quarter of section 20, township 20-116.

A. There is a homestead in that north part. There is no declaratory marked up there.
Q. Have you a block of declaratory statements?
A. Yes.
Q. Will you get that record?
A. Well, that is a puzzler; if we haven't got any record on the book here, how are we going to find it? We have a record of every coal declaratory statement.
Q. Will you get your record and look up record 853?
A. Is that the number of the coal declaratory statement?
Q. Yes.
A. Well, it will take quite a time to find it.

183 (Witness produced paper.)

Q. You say then, that there was a coal declaratory statement on this west half of the southwest quarter of section 20, township 20 north?

Mr. Kelley: Defendant objects to that as incompetent, irrelevant and immaterial, for the reason that it is affirmatively pleaded by the complainant in the case and admitted by the defendant, that prior to the time when the Soldiers' additional scrip entry was made upon these premises, the land embraced within the description belonged to the United States Government, and that title therefrom was deraigned by means of a Soldiers' additional scrip entry; that, therefore, it is entirely immaterial whether or not a coal entry had formerly been made upon said land, for the reason that no title was ever acquired by virtue of any such entry. We also object to the question for the additional reason that, whether or not a declaratory statement was filed upon said land under the Act of Congress providing for the obtaining of title to coal lands, is, of itself, no

evidence as to the character of the land, and particularly no evidence as to the character of the land at the time when the entry complained of in this suit was made by the predecessors in interest of the defendant company.

Q. Answer. What do you find as to whether there has been a coal declaratory statement made upon this land embraced in entry No. 733, being the west half of the southwest quarter of section 20, township 20 north, range 116 west?

A. Yes, I find a coal declaratory statement was filed on it.

Q. What number, if any, does it bear?

184 A. It bears No. 853.

Q. What date was it made? A. March 28th, 1898.

Q. And by whom?

Mr. Kelley: It may be understood, without continual repetition, that this objection goes to all evidence concerning this coal filing.

Mr. Burke: Certainly.

A. Thomas Snedden of Diamond, Wyoming.

Mr. Burke: Plaintiff now offers in evidence this declaratory statement, No. 853, and asks leave to substitute a certified copy thereof in the record.

Original declaratory statement No. 853, and certified copy thereof, both marked with the same number, plaintiff's exhibit No. 268.

Q. Mr. Davis, will you turn to the plat of township 19 north range 116 west, and to section 18, and will you look at the entry as to the north half of the southwest quarter of section 18.

A. North half of the southeast quarter of section 18, that will be 780; that was certificate No. 780.

Q. Will you look at your coal declaratory statements and ascertain as to whether that piece has ever been entered under a coal declaratory statement or not?

A. The plat does not show it.

185 Q. I am informed that it is No. 860, July 5th, 1898, by Marian Aitken. A. I am unable to find No. 860 here.

Q. Is there any other book of index or otherwise that would indicate as to whether there had been a coal declaratory statement in relation to this land? A. Yes.

Q. Will you turn to such record and produce it?

A. Yes. (Book produced.)

Q. What record have you there?

A. Coal Declaratory Statement Record Book.

Q. Now, what record do you find there as to a declaratory statement on the north half of the southeast quarter of section 18, township 19 north, range 116 west?

Mr. Kelley: Defendant interposes the same objection as that which was made to the introduction of coal declaratory statement, No. 853.

A. That is the number that you have reference to, is it?

Q. Yes.

A. Well, I cannot account for the coal declaratory statement being missed, but this is the record here: "Coal declaratory statement No. 860 was filed July 5th, 1898, by Marian Aitken of Kemmerer, Wyoming, for the east half of the northeast quarter and the east half of the southeast quarter of section 18, township 19, north, range 116 west." In other words, it is the east half of the east half of the section.

Mr. Burke: Plaintiff now offers in evidence line 14 on
186 page 119 of The Abstract of Declaratory Statements, of the records of the United States Land Office, Evanston, Wyoming, together with the headline as explanatory of the matter therein recorded.

Same objection noted by defendant.

Line 14, page 119, Abstract of Declaratory Statements, marked plaintiff's exhibit No. 269, and appended hereto on sheet of exemplifications from said book.

Q. Now, calling your attention again to this section 18, and to the plat, what is the character of the entry made upon the west half of the west half of that section?

Mr. Kelley: Defendant makes the same general objection.

A. That is cash coal. What is that number, can you tell?

Q. No. 130. What is the character of the entries showing the disposition of the northeast quarter of that section?

A. The northeast quarter of the northeast quarter has got cash coal on it, or the north half of the northeast quarter.

Q. What has the south half got?

A. The south half of the northeast quarter has got cash coal on it.

Q. What does that cash coal mean?

Mr. Kelley: Defendant objects to that on the ground that it is merely calling for a conclusion of the witness; it is incompetent irrelevant and immaterial for any purpose in the case.

A. It means the purchase of coal land.

Q. What was the character of the disposition of the
187 southeast quarter of the southeast quarter?

Same objection noted by defendant.

A. That is cash coal, I guess, again.

Q. What as to the southwest quarter of the southeast quarter, and the southeast quarter of the southwest quarter of that same section?

A. Cash coal. There are three forties there that are cash coal.

Q. That includes the northeast quarter of the southwest quarter?

A. The west half, you might describe it that way; the west half of the southwest quarter and the southeast quarter of the southwest quarter of section 18.

Q. Referring to section 8, which corners with the section about which I have interrogated you, what class of entry has been made as to the west half of that section?

Mr. Kelley: Defendant objects to that upon the ground that it is incompetent, irrelevant and immaterial for the reason that it is no part of the premises in controversy in this suit, that it is not within the same section of land as any of the premises in controversy; defendant makes the additional objection that it is not evidence as to the character of the land, and the record is incompetent.

A. The west half of section 8 was purchased for coal land.

Q. And that is true of the west half of the west half of section 20? A. The same is also cash coal land.

188 Q. It has been sold as such? A. Yes, sir.

Q. That is true of section 30?

Mr. Kelley: I wish it understood that defendant's objection goes to all of this testimony.

A. The west half of the west half of section 30 was purchased as coal land, and then the west half of the east half was also purchased as coal land.

Q. Sections 19 and 17 are railroad sections, I understand?

A. Yes sir.

Q. And likewise section 7? A. Yes, sir.

(Direct-examination concluded.)

Mr. Kelley: At this time the defendant moves to strike out all of the evidence of this witness with reference to the character of the land and the method by which title was obtained from the United States Government, for the reason that the witness is testifying, not from his own knowledge, but merely from the notations made upon the plat, and the plat itself has been introduced in evidence and is the best evidence as to what these legends state.

It was thereupon understood and agreed between the parties that the testimony of Mr. Davis as to the designations and abbreviations on this plat should apply to all the plats offered in evidence.

189 Cross-Examination

By Mr. Kelley:

Q. Mr. Davis, what official position do you occupy?

A. Register of the United States Land Office at Evanston.

Q. How long have you occupied that position?

A. Two years.

Q. Since 1906 some time?

A. Since December 9th, 1905.

Q. Prior to that time you had no connection with matters in this office, had you? A. No, sir.

Q. And what was your business prior to that time?

A. Before I took this up?

Q. Yes. A. I was weighing coal on top of a mine.

Q. How long had you been so engaged?

A. Oh, about two years and a half.

Q. Did you ever live in the vicinity of Diamondville?

A. No, sir.

Q. Have you ever been up in that country at all?

A. No, sir.

Q. As far as you have testified with reference to the character of the land embraced within sections 18, 20 and 30 in township 20 north, range 116 west; sections 6 to 18 in township 19 north, range 116 west, and section 12 in township 19 north, range 117 west, you have been merely testifying from the records in your office? A. Yes, sir.

Q. And in identifying the land and notations upon these various plats and exhibits that have been shown to you

190 by counsel, you do not wish to be understood as testifying independently to any of these facts at all, but simply as reading what the record says?

A. Yes, that is all.

Q. You have no knowledge yourself as to the character of any of this land, I suppose? A. Only hearsay.

Q. Turn to the plat of township 20, 116 west. What does the designation on this plat, H. E., mean?

A. Homestead entry.

Q. You were interrogated by Mr. Burke, I believe, as to some entries on the west half of section 20 in this township?

A. Yes.

Q. Now, then, immediately to the southwest—take the north half of the northeast quarter, and the northeast quarter of the northwest quarter of section 30; what character of entry do you find there? A. A homestead entry.

[A.] Numbered what?

A. 2017, and final homestead entry, No. 758.

Q. What does that indicate, Mr. Davis?

A. It indicates a homestead entry.

Q. That those lands were acquired under the homestead law?

A. Yes, under that law; that is, that it was that kind of a homestead entry. I don't know whether this could have been acquired by scrip or not.

Q. But it would have been under the homestead laws, practically?

A. Yes, under the homestead laws, but sometimes they are acquired by scrip.

191 Q. As a matter of fact all of the entries in that section, to-wit, No. 30, are homestead entries, are they not?

A. Yes; most of them, anyway. Let us see—yes, all of them.

Q. Now, then, immediately to the northwest of section 20, concerning which counsel asked you some questions, what character of entries do you find covering that entire section, section 18 in this township?

A. I guess they are all homestead entries, but I am unable to tell from the plat whether they were filed with scrip or not.

Q. But they are designated here as homestead entries?

A. Yes, they were taken up under homestead entries.

Q. And title acquired under the homestead law?

A. Yes, sir.

Q. Now, immediately south of section 20, concerning which you were asked, is section 29. That is Union Pacific land, and is so designated? A. Yes.

Q. And immediately to the north is section 17 on this same township— A. Yes, that is Union Pacific land.

Q. That is also a Union Pacific section? A. Yes.

Q. And immediately east and west are Union Pacific sections? A. Yes.

Q. Sections 19 and 21? A. Yes.

Q. Township 19 north, 116 west. Now, in section 18, township 19 north, range 116 west, concerning which Mr.

192 Burke asked you some questions, what character of entries do you find covering the east half of the northwest quarter of the section?

A. Homestead entries, taken up under the homestead laws; still it might be taken up with scrip.

Q. Yes, I understand that. And the north half of the southeast quarter?

A. That is homestead entries.

Q. The section immediately east, 17, also south, 19, and north, 7, of this section 18, are all Union Pacific sections?

A. Yes.

Q. And what character of entries do you find embracing section No. 6 of this township?

A. All homestead entries.

Q. Take the plat of township 19 north, 116 west. Mr. Davis, in section 6, township 18 north, range 116 west, concerning which Mr. Burke asked you some questions, let me ask you what sort of entries you find in the northwest quarter of the southwest quarter of that section?

A. Homestead entries.

Q. Can you tell what sort of entry was made on the southwest quarter of the southwest quarter?

A. There is nothing made on it; it is vacant land.

Q. Immediately east of section No. 5, you find a Union Pacific section, do you not? A. Yes, sir.

Q. And immediately east of that, what character of entries do you find, as far as any have been made?

A. Homestead entries.

193 Redirect Examination

By Mr. Burke:

Q. All of these homestead entries about which Mr. Kelley has questioned you are scrip entries, are they not?

A. I believe they are, but we would have to go back over the records and check up their numbers to find that out.

Q. You don't find any homestead entry of 160 acres that has been entered as a homestead and lived upon under the homestead law, do you?

Mr. Kelley: We object to the witness answering that question unless he knows what these entries are; if he knows he can testify.

A. Well, the plat book shows that they are homesteads, but the plat does not show whether they were entered under scrip or not; we would have to refer to the entry books.

Q. Well, sir, you may refer to the entry books, then, and ascertain whether any of these entries were other than scrip entries, and you may answer that question tomorrow morning.

A. All right.

Q. And if there is, we wish you to get the date of such entry.

A. All of those entries on this plat here?

Q. Yes, of the plat in relation to which Mr. Kelley has inquired of you, as to the three townships.

A. Well, you had better give me a list of them.

Q. 18, and 19 and this one.

A. All right.

Whereupon further hearing was adjourned until Thursday, Jan. 23rd, 1908, at 9-30 A. M.

194 Thursday, Jan. 23rd, 1908, 9-30 A. M.

Examination of Mr. Davis, resumed.

(Last question read.)

Mr. Kelley: We object to the question on the ground that it is incompetent, immaterial and irrelevant.

A. Yes, sir, there are others besides scrip.

Q. Can you indicate what they are, by number or otherwise?

A. Yes, sir. In township 18-116 we get two homestead entries here, No. 2324, Aug. 31st, 1902, and homestead entry 2603.

Q. Will you turn to township 19-116 and state what the fact is.

Mr. Kelley: Defendant makes the same objection, incompetent, immaterial and irrelevant.

A. No, I am not able to find in township 19 anything besides scrip entries and cash coal entries.

Q. Turn to township 116, please.

A. Yes, there are some desert entries and some homestead entries that are not scrip entries in this township.

Q. Can you designate which they are?

A. Yes, sir. Here is homestead entry 1148 and final certificate 722; and homestead entry No. 1478. The balance are scrip entries and cash coal entries, with the exception of one desert here, desert 780 and final certificate No. 428.

By Mr. Burke:

Q. What section is that, please?

195 A. That is in section 4.

By Mr. Burke:

Q. Turn to township 21, range 116, and state what the fact is.

A. Yes, there are homestead entries—final certificate 380 in section 14; final certificate No. 204 in section 12; homestead entry No. 1969; homestead entry No. 1122, and one cash entry, No. 135. There are two scrip entries in this township.

Q. And the rest of the entries? A. Are cash coal.

Q. Now, will you turn to township 18 in range 117 and state what the fact is there—

Mr. Kelley: May I ask a question?

Mr. Burke: Certainly.

By Mr. Kelley:

Q. Do these plat books show all of the entries in these respective townships? A. Yes, sir.

Q. Isn't it a fact that there are some entries in your tract books that are not on these plats?

A. No, sir, I don't think so; we have not discovered any yet. What township did you want in range 117?

By Mr. Burke:

Q. I want townships 18, 19 and 20.

A. In township 18 there is one desert entry in section 2, No. 661, final certificate 232. In section 10 there
196 is a forest lieu section by the Union Pacific Railway Co. Section 12 there is a desert entry No. 582, final certificate No. 191, and in the same section a homestead entry, No. 396, commuted to cash, No. 165. In section 26 there is a desert entry No. 267, final certificate No. 125; and in the east half of the east half of the same section there is a homestead entry No. 2618 that has not yet been proven upon, and between those two entries there is cash coal No. 161.

Q. And the rest of the entries are either scrip entries or—

A. Scrip entries or coal declaratory statements.

Q. Now, take township 19.

A. In section 24 we have a forest lieu selection, township 19 north, range 117. In section 12 we have eight scrip entries. The balance of the township is coal declaratory statements.

By Mr. Kelley:

Q. That is as far as taken up, I suppose?

A. Yes, sir.

Q. You don't mean that it is all taken up?

A. No, but the balance of the entries in the township.

By Mr. Burke:

Q. Township 20, range 117.

A. We have a homestead entry in section 7, No. 187, final certificate, 152. We have a desert entry in the same section, No. 376, final certificate, No. 169. In section 18 we have a desert entry, No. 675, final certificate, No. 286. We have a number of cash coal entries in this township, and the balance of the entries are coal declaratory statements, I believe,
197 and most of them are dead—expired; some have not, though.

Mr. Kelley: Of course, it is understood that all of this evidence is going in over our objection.

Re-cross Examination

By Mr. Kelley:

Q. What other book have you, Mr. Davis, besides the Tract Book to which you are referring?

A. We have the Original Entry Book of the Final Entry Book, for each. We have an original entry book for homesteads, and a final entry book when the proof is made.

Q. You have a Tract Book in which those are also entered, each entry, and the character of the entry? A. Yes.

Mr. Kelley: If it is agreeable to counsel, I do not think I will stop at this time, but I will furnish Mr. Davis with a list of the entries that he has testified to Mr. Burke, and suggest that he take it up with the Tract Book and ascertain whether there are any omitted; that will save time, and he can come back later on.

Mr. Burke: All right.

Q. Mr. Davis, I wanted to ask you a question with reference to a matter that you testified to yesterday, the west half of the west half of section 20 in township 20, range 116. I be-
198 lieve you testified that a coal declaratory statement had been filed on this land prior to the time when it was entered as scrip? A. Yes, sir.

Q. Do you know what became of that coal declaratory statement and the entry?

A. I believe we introduced it in evidence yesterday, didn't we?

Q. I know, but what became of that entry?

A. Why, it expired.

Q. In what way?

A. From age. They are only good for twelve months.

Q. Are you sure of that?

A. Well, I am pretty near, but I will tell you, I could not testify as to my memory as to those things, because I am only here to read the record of them.

Q. Certainly, Mr. Davis. That entry has been removed from the records, has it not?

A. Well, as far as the record is concerned, it is dead.

Q. Does your record show the manner in which this entry was cancelled, withdrawn or relinquished?

A. I don't hardly think so, but I can look it up.

Q. Will you kindly do that?

A. Yes. Now, where are we; we were in 20.

Q. The west half of the west half of section 20 in township 20, range 116.

A. That is the land there (indicating on plat.)

Q. Now, what became of that coal filing which was made on here, according to the record.

A. I believe we introduced yesterday the coal de-
199 claratory statement.

Q. Yes, but I mean that necessarily, of course, the coal declaratory statement or the coal filing was abandoned, because subsequently it was entered as scrip land?

A. It was entered long before it was taken up as scrip, I think. Of course, I don't remember that.

Q. Will you look up your record and see what became of that coal filing, No. 853?

A. Now, you want 853, on June 31st?

Q. Now, Mr. Davis, in order to keep the record straight, I will put a question. Have you a record of your office that contains the information as to how coal entry No. 853 was relinquished or cancelled? A. Yes, sir.

Q. What is the record, please; identify the book.

A. The record is abstract of Coal Declaratory Statements.

Q. That book is one of the records in your office?

A. Yes, sir.

Mr. Kelley: Defendant now introduces in evidence line 1 of page 116 of this Record book.

Q. You will please read that entry into the record, Mr. Davis, giving all of the notations made, the number of the filing, etc.

A. Number of statement filed, 853; date of settlement, Oct. 1st, 1897, date when filed, March 28, 1898; name, by Thomas Snedden, Diamondville; description, west half of west half of section 20, township 20 north, range 116.

Q. Now, then, over this regular entry I see a notation
200 in red ink. Will you please read that in the record.

A. "Canceled by relinquishment, June 21st, 1899."

Mr. Kelley: I think that is all at this time. We will reserve the right to recall Mr. Davis in relation to the matters we stated, simply taking up the homestead and scrip entries from the record.

(Witness excused.)

201 Frank M. Foote, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name? A. Frank M. Foote.

Q. Where do you reside, Mr. Foote?

A. Evanston, Wyoming.

Q. How long have you resided here?

A. Thirty-five years.

Q. What official position, if any, do you hold under the Government?

A. Receiver of public monies for the United States Land Office.

Q. At Evanston? A. Yes, sir.

Q. How long have you held that position?

A. This last time, since the 1st of November, 1899.

Q. And prior to that time?

A. I came in in March, 1900, and was in four years.

Q. And who held the position in the interim between your two holdings of that office?

A. Frank Mills, for three years, under Mr. Cleveland.

Q. And following that in the interim?

A. Then I was appointed again by Mr. McKinley for four years, and reappointed and served less than a year when I went to the Philippines.

Q. Who followed you?

202 A. B. M. Ausherman.

Q. You again resumed the office when?

A. When I came back on the 1st of November, 1899.

Q. And still hold it? A. Yes, sir.

Q. As such officer, you may state as to whether or not you, together with the Register, are the custodians of the records of the United States Land Office at Evanston, Wyoming?

A. Yes, sir, I am.

Q. I requested of you, Mr. Foote, that you should make an exemplification or copy of the plats in your office of townships 18, 19, 20 and 21 of range 116 west of the 6th principal meridian also of townships 18, 19 and 20 of range 117 west of the 6th principal meridian. I will ask you if you have done so?

A. Yes, I have.

Q. Will you produce them?

A. There is 18-116; there is 19-116; there is 20-116; there is 21-116; there is 18-117; there is 19-117; and there is 20-117.

Q. I will ask you now as to whether those are true, accurate copies of the plats of your office, showing each and all of the several entries made in the several townships referred to?

Mr. Kelley: Defendant objects to the question upon the ground that it is immaterial, the plats covering premises not in controversy in the action.

A. Yes, sir.

Q. I observe that you have colored these entries, and I wish you would now explain the colors as made upon

203 these exemplifications.

A. All together or each one separately?

Q. Each one separately.

Mr. Kelley: Defendant makes the same objection, that they are immaterial, except as to the premises actually in controversy.

Q. Give the number of the township.
A. Township 20-117.

Mr. Kelley: Defendant objects to any evidence as to any premises except those which are at issue in the case, on the ground that it is immaterial.

A. Now, the letters U. P. marked in the center of the section designate U. P. grant lands within the twenty mile limit. The sections or portions of sections that are colored in blue represent cash coal entries, and the blue which is crossed and recrossed represents land that has been filed on at different times and by different numbers and different persons by coal declaratory statements. H. E. stands for homestead; and F. H. E. final homestead or final certificate, D. E. D. L. E. for desert, and F. D. E. for final desert.

Q. Now, take township 19-117.

A. The same as before, with this difference in this township that those colored in red are homestead entries made by Soldiers' additional scrip.

Q. Now, 18.

A. 18-117 is the same as the last, with the difference that there is one forest lieu selection, which is not colored, but is just marked.

204 Q. Now, take range 116 townships.

A. This is 21-116, and has the same notations, I think. U. P. is marked, and this 40 marked T. C. E. is a timber culture entry which was commuted to cash. The cash entries outside of cash coal are simply marked cash, giving the number, and I believe the names of all of these. 20-116 is the same as the other.

Q. What does the light green mean?

A. Well, the light green is marked cash on these, but it was not marked on the other cash entries, straight cash—well, really, these three marked together here are cash entries for timber and stone entries. 19-116 is the same as the others. There is one forest lieu selection on this township, which is marked forest lieu, No. 4043. 18-116 is the same.

Q. Now, the numbers, as they appear on the several entries as they are therein designated, refer to the number of the entry?

A. To the number of the original homestead entry and the number of the final homestead entry to the original desert en-

try and the final desert entry; to the cash coal entries, cash entries, coal declaratory statement numbers, forest lieu selection numbers.

Q. Mr. Foote, can you state as to when the several cash coal entries and the several coal declaratory statement entries were made? A. Yes, by reference to my books.

Q. It will take you a little while to do that?

A. I have the books right here. Any particular number that you ask, I can give the answer in a second.

Q. I will ask you to take the numbers of the several
205 entries in these several townships as to cash coal entries and coal declaratory statement entries, and put against each number respectively the date when the entry was made and hand it in, and let it be your answer to this question.

Mr. Evans: Defendant wants to object to your previous question to Mr. Foote, for the reason that it is immaterial, irrelevant and also incompetent under the issues in this case; that the question calls for answers which relate to lands remote from, and not the lands in controversy in the action, and which furnish no evidence binding upon the defendant in this action, and do not prove or tend to prove the character of the land or any of the issues in the pleadings in this action.

Mr. Burke: Plaintiff now offers in evidence these exemplifications of the plat book of the United States Land Office at Evanston, Wyoming as to townships 18, 19, 20 and 21 in range 116 west, and townships 18, 19 and 20 in range 117 west.

Mr. Evans: I would like to ask Mr. Foote a question or two before the plats are put in evidence, simply to see if they are full copies.

Mr. Burke: Very well.

By Mr. Evans:

Q. Mr. Foote, is each of these exemplifications a complete and full copy of the plat which it purports to represent?

A. As far as the entries are concerned. The topog-
206 raphy and the streams, etc, are not on all the plats.

Q. Does each of these plats show all of the entries upon each tract of ground which it purports to cover, in each copy? A. I think it does, yes, sir.

Q. Does each of these exemplifications show, for instance, as to each particular section which is included in the township covered by the exemplification, all of the memoranda regarding the entries upon the lands that are shown upon the original plat; for instance, are there any entries appearing up-

on any section upon the original plat, which do not appear upon the exemplifications?

A. I think not. I will explain a little. Now, for instance, a quarter section may have been filed on half a dozen times by coal declaratory statements before the cash entry was made. Those have been erased when the final cash coal entry number has been put on the books in almost every instance.

Q. Is it also true that other entries may have been made upon some of this land; for instance, a coal entry made, and subsequently an agricultural entry made and the coal entry relinquished, and your exemplification does not show it?

A. You mean a coal declaratory statement canceled and an agricultural entry made?

Q. Yes.

A. It is just possible that that may be true. Of course, I have only got the entries that are of record at this moment on these plats. I did not go back and put down entries that had been canceled.

Q. Exactly. Now, your plats—

A. I want to call your attention to one that I know was not complete in that way; here it is, in 19-117. Now, this
207 section 24 in township 19-117 had four homesteads on it, and they were all relinquished for the purpose of filing this forest lieu selection No. 1 on that section, but this map does not show that.

Q. That fact is shown upon the original plat, but does not appear on the exemplification? A. Yes, sir.

Q. In other words, your exemplification simply shows the final record as made up in the Land Office?

A. With the exception of the coal declaratory statements.

Q. With the exception of the coal declaratory statements.

A. I tried to give the number of every coal declaratory statement as far as I was able to see it on the plat.

Q. That is, you were particularly requested, in cases where coal declaratory statements were put upon land, and afterwards a homestead or scrip entry was made—you have shown that in your exemplification; is that true?

A. Give me the question again.

Q. Practically the only case that you have attempted to show the previous history on your exemplifications as taken from the plat, is in the case where a coal declaratory statement was relinquished and abandoned and followed by a homestead for some kind of agricultural entry?

A. No, I haven't tried to do that. I have tried to give the numbers, as far as I could make them out on the plats, of every coal declaratory statement that has been filed on any

particular tract of land in these six or seven townships. I will explain to you. For instance, in this township, 21-116, that township is so completely covered with numbers that it is impossible to make them out; there is one number after another, coal declaratory statements and everything else.

208 You see I have made out three plats. Here is the original, and you can see it is covered all over with numbers.

Q. Are you stating this for the record?

A. Well, I don't think it is necessary in the record.

Mr. Kelley: It should go in the record.

The Witness: I was explaining that it is impossible to give all the numbers that are on this plat.

Q. Referring now to which one?

A. To 21-116. Now, I have made one and pasted it right to it, which leaves there all these numbers except the final entry number, all through.

By Mr. Burke:

Q. That is part of your record, is it?

A. Yes. Then, I have made a second one and attached to it. This land has been classified and priced, and these different colors show the different prices of coal land in that township, 21-116.

By Mr. Evans:

Q. Now, Mr. Foote, in other words your exemplification simply shows the final record in the Land Office as far as shown upon the plats which you have purported to copy, but does not show the previous history of some of these sections and subdivisions as shown upon the original plat, but that is omitted in a great many cases?

A. I think that is right; that is omitted, yes, particularly in this case.

209 Q. Particularly in the case of township 21-116?

A. Township 21-116, because it is impossible to get all these numbers. A coal declaratory statement can be made on 320 acres, and somebody can go and file on top of that for 80 acres or 160 acres, and from the numbers as they appear here we could hardly tell, without going to the Tract Book, what ground they called for, and the Tract Book, as it is filled up, the pencil marks are rubbed out and ink written over them in some places.

Q. So that would it be possible for you, with the aid of your Tract Book, to make your exemplification, your copy, a true copy of this plat of township 21?

A. I think it would; I wouldn't say that I could, positively.

Q. But you could come much nearer than your present exemplification does? A. I think so.

Q. Now, you referred here particularly to this township 21, to the fact that you have made two plats, two exemplifications from that plat, one on the same plan as the other, showing the entries, and another showing or purporting to show the classification and grading of the lands? A. Yes, sir.

Q. Where did you get that data?

A. That is furnished us by the Department in Washington.

Q. You don't take that from your plat?

A. We have plats, yes, sir.

Q. Do you take that from this plat that was introduced in evidence that we are talking about; do you take this exemplification?

210 A. I made this plat.

Q. You refer to this plat, the one of township 21, range 116?

A. I made that from the original, and this I got from an original which is in another book; it is furnished us by the Department, of all lands that are classified up to this time.

Q. The one that I mentioned to you, the second one, that you say is made from another book, showing certain data concerning this township 21, is taken from a plat which has not been introduced in evidence, I understand?

A. Yes, sir. No, it has not been introduced in evidence.

Mr. Evans: Defendant's counsel wish to object to the introduction of each and all of these plats, for the reason that each is immaterial and irrelevant, and also incompetent. It is incompetent for the reason that the plats are not the best evidence of the matters which they purport to represent, and are not the original entries or original statements found in the Land Office files concerning the matters. That each of the plats is immaterial and irrelevant for the further reason that each of them shows sections and tracts of land not in controversy, and many of them remote from the lands in controversy in this case. For the further reason that each of the plats purports to show acts of parties in no wise connected with the defendant in this action, and by whose acts or doings the defendant cannot be bound. For the further reason that each of these exemplifications does not prove or tend to prove the character of the land or any of the issues in this action. For the further reason that it is shown by the testimony of Major Foote, the witness producing them, that none of these plats is a full, true or correct copy of the plat of which it purports to be a copy. In addition to the above grounds, we ob-

211 ject particularly to the exemplification of township 21 north, range 116 west, the one referred to by Major

Foote as showing the price and classification of the land, for the reason that it is not an exemplification of any original plat or record offered in evidence, but is merely a plat or sketch prepared from the Land Office records, as showing the conclusion as to these lands or these records, and the records themselves would not be competent or material evidence in this case.

By Mr. Burke:

Q. Mr. Foote, I will ask you one more question. It is true, is it, that these exemplifications of them correctly indicate all entries of coal land, or coal entries, and all coal declaratory statements, and all homestead or other entries as existing at the present time and as having been made heretofore as coal declaratory statements? A. Yes, sir.

Mr. Burke: We renew our offer.

By Mr. Evans:

Q. The exemplifications do not show these facts as they existed or as the records of the Land Office, the plats, showed them to exist in 1899 or 1900, do they, Mr. Foote? Your answer to Mr. Burke related to the present time?

A. Yes, sir. Well, all entries that were of record in 1899 and 1900 are on these plats.

Q. On your exemplifications? A. Yes.

Q. Were there not some upon the original book that
212 have been erased?

A. Well, with the one exception that I told you there, that section 24.

Q. Is that the only one? A. That is the only one.

Q. On all of these exemplifications?

A. Except possibly some coal declaratory statements that are so unintelligible that I could not make out the number.

Q. Yes, that is the reason, but it is a fact that there are some coal declaratory statements that may have existed in 1899 or 1900?

A. I think only in that one township 21-116; I think that with the others every number is down there.

Mr. Burke: Plaintiff now renews the offer, and asks that the exemplifications be marked plaintiff's exhibits in numerical numbers, commencing with the plat of township 18-116.

Copy of plat of township 18-116 marked plaintiff's exhibit No. 270; 19-116, marked plaintiff's exhibit No. 271; 20-116, marked plaintiff's exhibit No. 272; 21-116, marked plaintiff's exhibit No. 273; 18-117, marked plaintiff's exhibit No. 274; 19-117, marked plaintiff's exhibit No. 275; 20-117, marked plaintiff's exhibit No. 276.

Mr. Evans: Then, these two plats attached to the original plat are not offered?

Mr. Burke: No, they are not offered.

213 Mr. Evans: Then, any reference to them in the objection, of course, is withdrawn. I understood Mr. Foote to include them by his description.

Cross-examination, resumed.

By Mr. Evans:

Q. When did you retire from the Land Office, Major, on your second appointment, when you went to the Philippines?

A. I left here about the 2nd or 3rd of May, 1898.

Q. When had you been appointed prior to that on that term?

A. Well, I was appointed—I would have to look up my commission to get the right date, but I think it was a little less than a year before that, or possibly a trifle over a year, but I think it was a little less.

Q. Mr. Ausherman succeeded you in 1898? A. Yes.

Q. And how long did he serve?

A. Well, I wasn't really relieved on May 1st; he ran it in my name up to about the 1st of July. I was on the ocean at the time I was relieved, and then he served from that time until November, 1899; that would be about sixteen months.

Q. Then, did you reoccupy the office?

A. Yes, I took the office again when I returned.

(Witness excused.)

214 Lou R. Henderson, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. Lou R. Henderson.

Q. Where do you live, Mr. Henderson? A. Kemmerer.

Q. How long have you lived there?

A. Well, in Kemmerer I have lived since 1902.

Q. How long have you lived in Uinta County?

A. Since 1899.

Q. And what is your business? A. Surveyor.

Q. How long have you been pursuing that?

A. Ever since I have been here in Uinta County, and a little longer.

Q. And at times have you been employed by the Diamond Coal & Coke Company?

A. Oh, just shortly, a short time.

Q. In what capacity were you employed for that short time and when?

A. I was assisting Frank Davis in making some surveys.

Q. Of what?

A. Why, we were at that time surveying a railroad from what is now Moyer Junction south.

Q. South to where?

A. South to what is now Glencoe.

215 Q. You are acquainted with the lands in controversy in this case as described in the bill of complaint?

A. In a way, yes, sir.

Q. Where does that road run as to these lands?

A. Why, the road runs just west of the lands, and I believe passes through part of 18; I think it touches 18.

Q. That is township 18.

A. Section 18, township 20, range 116. I think it touches it; if it dont, it runs just a little bit east of it.

Q. Have you been over these lands?

A. Yes, sir.

Q. In what way?

A. I have run lines over them, and have been over them in different ways, both afoot and in a buggy.

Q. What was that railroad built for; what was the object of the railroad; was it a coal road?

A. Well, I dont know; that is all it has ever been used for.

Q. How long is that road?

A. I believe it is eighteen miles or very close to it; it is called eighteen.

Q. Where are these lands in controversy here as to that road, being near that terminal or not?

A. You mean passing through?

Q. Yes.

A. Why, it passes through right close; it passes through mostly to the east of this land in question.

Q. How far from the southern terminal of the road?

A. Well, I dont know.

Q. Some of these lands, you know, are lying in three townships, north and south.

216 A. Yes. Well, the road runs through as far south as the south line of 18.

Q. That is township 18? A. Township 18.

Q. What do you know as to whether or not these lands along this road were generally exploited or not by the Diamond Coal & Coke Co. for coal?

A. Well, I dont know a great deal about that. I dont think that there had been a great deal of work done on these

particular lands, because I dont think the coal all cropped to the east.

Q. Well, the lands adjacent thereto and up and down the line of that road; what is the fact?

Mr. Kelley: Defendant objects to that on the ground that it is immaterial, for the reason that it is no evidence as to the character of any land embraced within the issues in this case.

A. Why, yes; they have done work on lands adjacent to these lands.

Q. How early do you know of their exploiting the lands adjacent to these and up and down that road, generally?

A. Well, ever since I have been there, nearly; in 1900.

Q. To what extent was that done; how was it done?

Mr. Kelley: Defendant objects to this as immaterial, being no evidence as to the character in controversy, and we wish it understood that the same objection goes to all of this testimony.

Mr. Burke: That may be understood.

217 A. Why, by opening up pits and holes along the seam to the east of these lands.

Q. Did they use a drill there at any time?

A. Well, now, I believe they had a drill in there at one time, but where I dont know.

Q. When?

A. I dont remember; I think it was in 1901.

Q. What is the fact as to whether there are drill holes there now that can be seen?

A. On this particular land in question, I dont know.

Q. Well, I mean adjacent land, immediately up and down in that vicinity?

A. Yes, there is holes there within a few miles of there, a short distance from there, that they drove down.

Q. Now, to what extent have you been up and down that road and up and over and across these lands and other adjacent lands?

A. Why, I have been over it several times; fifty times, I guess.

Q. How familiar are you with these lands?

A. I know pretty near where the corner is on pretty near every one of them.

Q. Now, state in a general way what the evidence are there of coal; I refer to the lands involved in this case and the lands immediately adjacent thereto.

Mr. Kelley: Defendant objects to the question, first, as to the lands which are not specifically involved in this case, upon

the ground that the evidence is immaterial, that it in no wise tends to establish the character of the land, and particularly does not tend to establish it at the time the entries
218 were made. As to the land which is involved in the suit, defendant objects to it on the ground that no proper foundation has been laid to justify the witness in giving testimony as to the character of the soil.

Mr. Burke: I am not asking for his opinion; I am asking for the evidence.

Mr. Kelley: I understand quite well what you are asking for.

A. That is, as to the value of the lands adjoining?

Q. Not the value of the lands, but the character of these lands and the lands adjoining as to giving evidence of coal.

A. Why, the lands adjacent thereto are coal lands. This particular land, while a person would call it coal land, the vein, itself, must be at least a thousand to two thousand feet deep right there.

Q. And what depth is it in the lands adjacent thereto?

A. Well, that is what I am speaking of as to the depth; according to the anticline of the dip there, the coal would be about thirteen hundred feet deep on 18.

Q. Now, then, how would it be on 19?

A. On 19 it would be virtually the same.

Q. And 20?

A. Why, 20 ought to be on the cropping, or very close to it.

Q. How is it in townships 18, 19 and 20 in range 117?

A. Why, it would be still deeper there.

Q. Now, what is the character of those lands; I mean how do they lie, that is, the topography of them?

219 A. The topography of the lands—they are in a valley, dry, and of an alkali nature; not a great amount of alkali, they have this Western alkali nature, and produce good grass for grazing, but no great amount.

Q. How wide is that valley?

A. Why, I believe about three miles; from one to four miles wide.

Q. What is the evidences of coal on either side of the valley, in the hills or mountains?

Mr. Kelley: Objected to on behalf of defendant on the ground that it is immaterial, irrelevant and incompetent, for the reason that the evidence does not tend to support or disprove any of the issues involved in this case, and particularly does not tend to establish the character of the land involved.

A. Why, there is coal on both sides of the valley.

A. And to what extent?

A. I believe the coal on the east side is from nine to fourteen feet, and on the west side I don't know exactly, but they claim that one of the largest veins in the United States exists.

Q. To what extent, what depth?

A. I believe they claimed here in court at one time that there was ninety-six feet of it.

Mr. Evans: We object to that as not responsive to the question and as hearsay testimony.

The Master: It is only hearsay evidence.

220 Q. Is that a matter of general repute? A. Yes, sir.

Q. Now, what mines are there up and down this line of road for eighteen miles through this valley?

Mr. Kelley: Defendant objects to this, first, upon the ground that it is irrelevant, immaterial and incompetent as to what mines may be up and down this line of railroad, unless it be shown that they are upon some premises in controversy in this action. We object further to the question as improper for the reason that it is immaterial as to what mines are now situated on the line of the railroad, the only material question being the condition of the lands and the disclosures thereon at the time the entries in controversy in this case were made.

Q. You may answer; start at the south end of the road and give the mines and their location as near as you can.

A. Producing mines?

Q. Producing mines and the amount of production.

A. There is the Cumberland No. 1 at the south end of the road; that is at the terminus of the road.

Q. Can you give the section and range?

A. It is in section 31, township 19, range 116.

Q. What does that mine produce?

A. I don't know what it is producing at the present time; it did produce at an average of two thousand tons a day when running at full capacity.

Q. What is the next mine, going north?

A. Cumberland No. 2.

Q. What section and range is that?

A. It is in section 19, township 19, range 116, and its
221 production is about the same as No. 1, about two thousand tons a day when running at full capacity.

Q. And going further north, what is the next?

A. The Glencoe.

Q. Where is that?

A. Glencoe is in section 17, township 20, range 116.

Q. What is its production?

A. I don't know exactly what its production is; I suppose about a thousand tons a day.

Mr. Kelley: Our objection goes to all this evidence.

Mr. Burke: Yes.

Q. What mine is north of that?
A. That is the last mine on the road that is tapped by this road.
Q. How far are these lands from the mines at Frontier and Diamondville and Cokeville? A. From Cokeville?

Mr. Kelley: Defendant makes the same objection.

Q. How far are these lands from those mines?
A. Why, from Diamondville—Diamondville is in 24, I think; it would be about six miles from Diamondville.
Q. From Cokeville?
A. Cokeville isn't this range at all; Cokeville is forty miles from there.
Q. And Frontier?
222 A. Frontier is about between three and nine miles.
Q. Now, one further question in regard to your experience, have you as an engineer made surveys of mines?
A. I have, yes, sir, at times.
Q. That is within your avocation, is it? A. Yes, sir.
Q. Now, of these lands that are in controversy in this case, what are they, agricultural or coal lands?

Mr. Kelley: That is objected to on behalf of defendant for the reason that it is incompetent, irrelevant and immaterial, unless the time at which the condition of the lands is to be described is specified, and for the further reason that no proper foundation has been laid; the witness has not been qualified to answer the question.

A. Why, they are not exactly what you would call agricultural lands, and while they may not be proven coal lands, I would expect them to be that.
Q. Are there any crops raised on them? A. No, sir.
Q. Have there ever been? A. No, sir.
Q. Have they ever been cultivated in any way?
A. Not to my knowledge.
Q. Are they fenced in? A. No, sir.
Q. Is there any farming in that vicinity?
A. No, sir, not in the immediate vicinity.
Q. What altitude are these lands?
223 A. They will be about sixty-nine hundred feet.
Q. Are you acquainted with Thomas Snedden?
A. In a way, yes, sir.
Q. How long have you known him? A. Since 1900.

Q. What has been his business?
A. Superintendent of the Diamond Coal & Coke Company.
Q. All of that time? A. Yes, sir.
Q. Are you acquainted with Danied F. Harrison?
A. Yes, sir.
Q. What has been his business since your acquaintance with him?
A. Why, he was working at the Diamondville Coal & Coke Company.
Q. In what capacity?
A. I believe he was property man there or something, taking care of the property of the Diamond Coal & Coke Company; I supposed he was.
Q. During what years?
A. I think it was in 1900, 1901 and 1902; I am not positive.
Q. Did you ever have a talk with Thomas Snedden in relation to the scripping of lands during the time that he was superintendent of the Diamond Coal & Coke Company, the defendant?

Mr. Kelley: Defendant objects to that on the ground that it is incompetent, irrelevant and immaterial; first, because no agency has been shown between the defendant company and the person inquired about which would establish any
224 relation between the [the] two that would make the acts or declarations of Snedden with reference to scripping lands binding upon the defendant; it has not been shown that any such act was within the scope of the authority or functions of Snedden. We object further for the reason that it is immaterial, in view of the issues in this case.

A. Why, I believe I did at one time have a little conversation about scrip.
Q. When was that? A. In 1901.
Q. What was that conversation?

Mr. Kelley: Defendant makes the same objection, and the further objection that the statement or conversation is shown by the witness to have been long after any of the entries in controversy in this case were made, and it is not shown to have applied to entries involved in this case.

A. Why, I had been using some scrip up north, and he asked me how it was used and what it was sold for and what could be done with it. I had been using some scrip up north, or I had not been using it, but I was making surveys for parties that was using scrip.
Q. Did he tell you what he wanted the scrip for?

Mr. Kelley: To that defendant makes the same objection.

A. No, he did not exactly tell me, but he wanted to know where it could be placed and how it could be placed.

Q. Did he mention the Diamondville Coal & Coke Com-
225 pany in connection with it?

Same objection noted by defendant.

A. Not in a direct way.

Q. Well, in an indirect way, what was it he said?

Mr. Kelley: We object to this on the grounds mentioned before, and also on the ground that it is leading.

A. No, I don't think he did exactly say anything in that line.

Q. What knowledge did you have as to the Diamond Coal & Coke Company desiring to obtain lands and wanting scrip for that purpose, if anything?

Same objection noted by defendant.

A. I had none.

Q. What knowledge had you as to their desiring to acquire these lands in question or adjacent lands thereto, from anything that Mr. Snedden stated to you, or any officer of the Company?

Mr. Kelley: Defendant objects to that upon the ground that it is immaterial, irrelevant and incompetent; their desire furnishes no basis for evidence. Further, for the reason that the question does not call for, and there is no attempt to show with what officer, representative or agent of the Company the conversation inquired about was had; therefore, it does not show that the statement would in any event be binding upon the defendant company.

226 A. I don't believe I had any direct knowledge at all, only that they were trying to open and acquire as much land in that vicinity as they could.

Q. Didn't Mr. Snedden tell you in that conversation to which you refer that the Diamond Coal & Coke Company was wanting to acquire all these lands—"Told me he wanted to acquire scrip for that purpose"?

Mr. Kelley: Defendant objects to that on the ground that it is immaterial, irrelevant and incompetent; further, that it is improper for the reason that the witness has already testified as to a conversation which occurred between himself and Snedden, and this is a leading question, without any proper foundation having been laid.

Mr. Burke: Counsel for the Government admits that it is leading, but states that, in conversation with this witness only last night he understood him to so state, and he asks the leading question for the purpose of procuring a fact as to whether it be true or not.

Mr. Kelley: Defendant moves to strike out the statement of counsel for the Government upon the ground that it is manifestly improper for counsel to make any such statement, not under oath, in this record.

A. I don't believe Tom Snedden ever said anything to me about the Diamond Coal & Coke Company at any time; it was always "I".

Q. Did he make such a statement as to himself?

227 Mr. Kelley: Objected to as immaterial.

A. Why, yes, he did.

Q. Do you know what scrip was worth along in 1899, 1900 and 1901?

A. Why, I used some scrip that was got as low as two dollars and a half an acre.

Q. And it ran from that up?

A. It ran from that up; most of it was four dollars and a half.

Q. What was this land which is involved in this controversy worth in 1899 and 1900 and 1901 as agricultural land, if anything?

Mr. Kelley: Objected to on the ground that the witness has not qualified to answer the question.

Q. If you know?

Mr. Kelley: Objects to on the further ground that it is immaterial under the issues in the case.

A. Why, I don't know; it was not worth over a dollar an acre, unless you had water on it.

Cross-Examination

By Mr. Kelley:

Q. Mr. Henderson, you stated that you are a surveyor and engineer? A. Yes, sir.

228 Q. And since 1899 you have resided, chiefly, in the locality around Diamondville and Kemmerer, have you not? A. Yes, sir.

Q. Those towns are in the vicinity of the lands that are in controversy in this action? A. Yes, sir.

Q. Now, I understood you to say that you worked on a railroad that ran adjacent to or through part of the land? A. No.

Q. Or that you were an engineer in the preliminary work for that railroad?

A. I helped Frank Davis run some preliminaries. The railroad at the present time don't run anywhere where we surveyed these railroads.

Q. Were you testifying, when you were talking about the location of the railroad, to your lines of survey or where the road was afterwards actually constructed?

A. Where the road now runs.

Q. You didn't have any connection with the road as it now runs, as I understand you, then?

A. No sir.

Q. Then, in what way have you acquired a knowledge as to its location? A. Why, the location of the railroad.

Q. That is, the grade, itself?

A. I ran lines through there different times since, within the last year, and ever since I have been there I have always, every year, been out on that flat running some lines.

Q. Now, your experience and occupation has been of such a character as to make you familiar with the general
229 topography of the country out there, has it not?

A. Yes, sir.

Q. And you think you are reasonably well qualified, I suppose, to testify with reference to the character of the land throughout that valley? A. Fairly well, yes, sir.

Q. You stated that you are familiar with the lands which are in controversy in this suit?

A. Yes, sir, I know something about them.

Q. You understand that these lands lie in the valley, as you term it? A. Yes, sir.

Q. Now, do you know the particular designation of the lands by legal subdivisions?

A. I couldn't quote them exactly, but I ran them all and kind of checked them off.

Q. I will state, Mr. Harrison, in order that you may have the location definitely fixed, that all of these lands are in—I will ask you just to step over here and look at this map.

A. Yes, I would like to check your map; I would sooner take the map for it.

Mr. Kelley: This map may be marked for identification now, if you wish. We expect to introduce it in evidence later. I will prove it later, and ask that it be marked for identification at this time, so that it may be identified in the record.

Map referred to, marked defendant's exhibit No. 1 for identification.

Q. The lands that are embraced in the controversy here
230 are colored yellow on this map.

A. This is 18, 20, 36, 12 and 18.

Q. Yes, in township 19 north, range 116 west.

A. Yes, 19-116.

Q. 12 is in township 20? A. Yes.

Q. Now, that is all. I just wanted to be sure that you understood the map. A. Yes, sir.

Q. Now, Mr. Henderson, I want you to tell me first, what are the general characteristics of the topography of the country in the vicinity of these lands?

A. Why, it is flat, a level flat on there, and predominates fairly well with sage brush.

Q. Then, I understand that these lands to which your attention has been specifically directed are in a valley? A. Yes.

Q. The valley runs in a northerly and southerly direction, doesn't it? A. Yes, it runs in a southerly direction.

Q. The general direction is north and south?

A. Yes, and the slope is to the south.

Q. On the east side of this valley it is hilly and mountainous, is it not? A. Yes, on the east side.

Q. And that is also true on the west side? A. Yes, sir.

Q. Between the hills on either side, what is the distance up and down the valley in the vicinity of these lands?

A. The distance of the valley from foot hill to foot hill?
231 A. Yes, the width of the valley from the foot hill to foot hill?

A. I should judge about four miles on 18 there—20-116.

Q. Would that be a fair average width of the valley opposite the lands in controversy?

A. Yes, fairly well; three or four miles.

Q. Now, you testified that there was some coal in the vicinity of this valley? A. Yes, sir.

Q. On both sides of the valley? A. Yes, sir.

Q. There is a coal vein running in a general northerly and southerly direction on the east side of this valley?

A. Yes, sir.

Q. This vein is the one which you described as being from nine to fourteen feet in thickness?

A. Yes, from six to fourteen feet.

Q. I understood you to say nine. Six to fourteen feet. Now, this vein, with reference to the valley, Mr. Henderson, is over near the foot hills on the east side of the valley, is it not?

A. Yes, sir.

Q. Whereabouts on the foot hills do you find the outcrop of this vein?

A. Why, to the west of the top, what you might call the cone of the hill; toward the westerly part of the east slope of the valley.

Q. Right up in the foot hills?

A. Yes, fairly well; about half way down the foot hills.

232 Q. These hills are about what height, as a general rule?

A. Oh, I think they have an elevation of may be two hundred feet higher than the valley, may be more or less; I should judge it was about that.

Q. It is a fairly well defined vein of coal that extends along there? A. Yes, sir.

Q. Does it not outcrop to the surface, however, does it, Mr. Henderson? A. Whereabouts?

Q. At any point opposite the lands or east of the lands that are in controversy in this suit?

A. Oh, yes; that is, it crops out east of the lands in controversy.

Q. Does the coal itself come to the surface, or is it not in all cases covered by wash?

A. Oh, it is all covered by wash; the blossom is there, but the coal is not there until—the largest part of the vein is all covered by wash; the only indication is the blossom of the coal.

Q. Then, I dont understand you to mean by the outcrop, that there is any vein of coal that stick up or projects above the surface of the surrounding country; you dont mean that?

A. Oh, no, no, I dont mean that.

Q. By outcropping you mean simply the top of the vein?

A. The top or apex of the vein.

Q. And it is covered by a wash from the hills above?

A. In most places.

Q. Now, there is, in some places, disclosed a blossom as it is called? A. Yes.

233 Q. This blossom, to an engineer of experience like yourself or to a coal prospector, would probably indicate the presence of coal in the vicinity of it, would it not?

A. Yes.

Q. To one who was not acquainted with coal or coal lands, it might not so indicate the presence of any coal? A. No.

Q. That is true, isn't it?

A. Yes, that is true.

Q. It takes more or less experience, as a matter of fact, to go along and endeavor to find and ascertain the location of this outcrop?

A. It did before it was opened up, yes.

Q. And the only way that you could be sure of the matter would be to sink a hole and see whether or not it disclosed coal, would it not? A. Yes, sir.

Q. And the depth to which you would have to sink, of course would vary in different places along the line of the outcrop? A. I dont understand.

Q. The depth to which you would have to sink a hole to disclose coal on the outcrop, as you call it, would vary along in different places on the outcrop? A. Oh, yes.

Q. Now, you also have a vein of coal on the west side of the west side of the valley, you say? A. Yes.

Q. That is, clear across the valley? A. Yes.

Q. And up in the hills there on the eastern border?

A. On the western border.

234 Q. On the western border, I mean. A. Yes.

Q. Now, this coal that you find on the western border, you say, is one of the largest veins—reputed so, at least—that they have anywhere? A. Yes.

Q. It is also one of the most worthless, is it not?

A. Yes, one of the most worthless veins of coal.

Q. It is absolutely good for nothing as commercial coal?

A. Yes.

Q. It is poor grade of what is known as lignite?

A. Very poor.

Q. So poor that, when taken out and exposed to the atmosphere, it crumbles and disintegrates, does it not? A. Yes.

Q. It is impossible to handle? A. Yes.

Q. There is no connection at all between this coal vein on the west side of the valley and the coal vein on the east side of the valley?

A. No sir; they are two distinct and different veins.

Q. They are not only distinct veins, but they are of an entirely different formation and of different geological age?

A. Yes.

Q. And in other characteristics? A. Yes.

Q. Now, whereabouts, Mr. Henderson, with reference to the lands that are in controversy, do you know of the existence of this 80 foot vein or 60 foot vein?

A. What sections, do you mean?

235 Q. Yes.

A. Well, I couldn't tell you exactly from memory, I would have to refer to notes.

Q. It is at a little place that they designated Adaville, is it not?

A. That is the place where they struck the largest vein, where this coal was supposed to be the deepest, is about a mile and a half south of the old townsite of Adaville.

Q. That is just about due west of Diamondville, is it not?

A. Yes, it is just about due west. I wont say the section, but it would be just about, may be, a mile south of due west of Diamondville.

Q. And Diamondville, you say, is several miles north of the most northerly section in controversy in this action?

A. Yes, sir.

Q. Now, then, do you know whether or not that vein, that large vein, in going south, maintains its thickness, or does it squeeze out? A. Which?

Q. The Adaville vein or the vein on the west slope?

A. The vein on the west slope squeezes out as it goes south, or it shows sign of erosion.

Q. So that when you come down the valley as for south as the most northerly tract of land embraced in this action, there is no coal on the west side of the valley.

A. Oh, Yes, there is coal there yet.

Q. This same vein?

A. Yes, the same vein. The vein runs down as far as in section—well, I forget—it is the center of township 19, range 117.

Q. You would not undertake to say, would you, Mr. Henderson, that that is the same vein?

236 A. Oh, yes, that is one and the same vein; it is open in twenty different places all the way along. You can walk and throw a rock from one hole into another.

Q. Isn't there twenty different veins on this west side of the valley, and isn't it all—

A. In this Diamondville vein? There is east of there, and you come east and you get into still another strata of coal, which would be the Twin Creek coal.

Q. But those veins are all broken up, aren't they?

A. Well, yes, they are all pretty well jumbled up after you get below the fourth standard parallel or the fifth standard parallel.

Q. Whereabouts is that?

A. That would be in 20 and 21.

Q. That would be north of any point opposite any land embraced in this action?

A. Yes. The coal still exists there, but the large vein is gone.

Q. Now, then, going back to the vein on the east side of the valley, do you know what is its dip or inclination?

A. It runs from 15.30 to 22 degrees, every place that I have taken it.

Q. From the horizontal?

A. Yes, from the horizontal.

Q. The dip is quite uniform?

A. Yes, all very uniform between those figures.

Q. And that applies to the dip of the vein wherever its outcrop is disclosed on the east side of the valley, opposite these lands in controversy? A. Yes, sir.

237 Q. Now, then, do you know the general dip of the coal veins on the west side of the valley?

A. On the west side of the valley, yes; I don't know exactly, but I know that there is some that dips as high as 61 degrees.

Q. And others that dip as low as what?

A. Others, when you get down below, you are right on an anticline. These veins are tempered on an anticline.

Q. Explain what you mean by an anticline for the sake of the record.

A. An anticline is where the wrinkles of the earth come together, the cone of the wrinkle.

Q. So that you would get from as much as 60 degrees from the horizontal to an upward inclination, wouldn't you?

A. No; that is the maximum on the west; it don't occur no place on the east.

Q. Speaking of the west side, in which general direction is the dip? A. It all dips to the west.

Q. So that the vein on the east side of the valley and the vein on the west side of the valley have the same general dip to the west? A. Yes; there is no semicline there.

Q. Now, then, the other rocks that go to make up the formation in that country there, have they any uniform or regular dip? A. [The] have, yes.

Q. And is it in the same general direction as these coal veins? A. The same general direction.

238 Q. So that it would be safe to say, would it not, that from the west side of the valley clear over to the east, including the foot hills on the border of either side of the valley, the general direction of the dip is to the westward?

A. To the west, yes, sir.

Q. Now, then, between these two veins of coal, or between these two series of coal veins, the one on the east side of the valley and the different veins on the west side of the valley do you know of any coal in the intervening space?

A. No, sir.

Q. As a matter of fact, there is absolutely no coal in the intervening space?

A. There never has been any discovered to my knowledge.

Q. And that includes all of the land that is in controversy in this case, and to which your attention has been called, does it not? A. Yes, sir.

Q. Now, then, you have testified that, measuring the inclination or dip of the vein and assuming that it maintains

its dip to the westerly until it would be beneath the surface of these lands in question, you would find coal at from a thousaid to thirteen hundred feet?

A. From thirteen hundred feet upward; that is on section 18 I am speaking of, 18-20-116.

Q. On some of the other sections that are involved, as for instance, section 12 in township 19-117, and 18, 30, and 6 and 19 in 116, the depth at which coal would be found, if at all, would be very much greater than the distance that you have given.

A. I will have to refer to the map a little; I can't
239 tell offhand. In 20 it would be less, and it would be less in all of them except 12-19-117.

Q. Now, when counsel for the Government asked you as to the depth at which coal would be found under these sections, that, of course, is entirely problematical, is it not?

A. Yes, sir.

Q. The only basis that you have for making any deduction is assuming certain facts to exist which of course you don't know to exist? A. Yes, sir.

Q. As, for instance, you don't know what the inclination of this vein is except where you have measured it?

A. Yes, sir.

Q. And you are assuming that it will maintain about the same inclination? A. Yes, sir.

Q. You are also assuming that it will maintain its existence? A. Yes, sir.

Q. And of that fact, of course, you have no knowledge?

A. No, sir.

Q. So that, asking you the question fairly, from your knowledge you cannot say, as a matter of fact, can you, that beneath the surface of any of these lands there is any coal?

A. Not positively, no.

Q. But you can say positively that, upon the surface of the lands themselves, there is no coal and no coal outcrop?

A. I have never seen any on these particular lands in question, on any of these particular lands in question.

Q. Now, then, you were asked with reference to the location of certain mines along this line of railway?

240 A. Yes, sir.

Q. None of these mines that you have testified to, of course, are upon any of the premises in controversy in this action? A. No, sir.

Q. They are off to the east, upon this coal vein that you have described? A. Yes, sir.

Q. And at varying distances from any of the land that is embraced in this controversy? A. Yes, sir.

Q. Now, you gave Cumberland No. 1? A. Yes.

Q. That belongs to the Union Pacific Coal Company?
A. Yes, sir.
Q. How far south of the south line of any land embraced in this controversy—that would be the little line of the northwest quarter of 18—how far south of the most southerly land embraced in this controversy is Cumberland No. 1 mine?
A. Here is Cumberland No. 1 mine; it would be eight miles.
Q. How far is Cumberland No. 2 from Cumberland No. 1—
A. Let me refresh my memory for a minute there. No, I think I made a mistake there of six miles; no, I think it is only three miles from here, three miles south.
Q. How far north—
A. As to my remembering all this data, I can't do it without referring—
Q. I understand.
A. The idea of looking each one of them over individually and giving sections and such as that, I can't do it without a reference.
241 Q. I understand that. I think you are doing remarkably well, Mr. Henderson. About how far north of No. 2 mine is the No. 1, if it is north?
A. It is north; it is north about a mile and three-quarters.
Q. Isn't it just about a mile, refreshing your recollection?
A. No sir.
Q. You think it is more than that?
A. No, sir, it is a mile and three-quarters; section 30 is between both of them. One is a little bit north of section 31, and the other is in the center of 19, and due west of the quarter corner.
Q. Now, the other mine that you mentioned, I believe, was the Glencoe, was it not? A. Yes, sir.
Q. And that, I understand, is still further north?
A. Yes, sir.
Q. About how far north is the Glencoe from Cumberland No. 2? A. (No answer.)
Q. If you don't know, just say so.
A. I don't know exactly, but I think it is about eight miles. I don't know exactly.
Q. Now, there are some more mines, of course, on this same vein of coal, are there not? A. Yes, sir.
Q. This vein of coal, as a matter of fact, is well defined on the strike? A. Yes.
Q. But there are lean places in the strike?
A. Oh, there is what they call 'wants' all over the coal.
Q. So that, because you can follow this line of outcrop
242 continuously in a northerly and southerly direction, you do not mean to testify that there is marketable coal at all places along it? A. Oh, no.

Q. Now, Mr. Henderson, are you familiar with the time when these mines were opened up?

A. Yes. Which mines do you mean?

Q. I mean these three that you have testified to.

A. Yes; I was there.

Q. No. 1 and No. 2 Cumberland and Glencoe?

A. Yes, I was there at the time they were opened up.

A. When was the first of these three mines opened up?

A. I think it was in 1900. The first one to be opened up was No. 4 Glencoe.

Q. That is the most northerly one?

A. That is the most northerly one.

Q. In 1900 work just began?

A. Well, now, I couldn't say exactly as to that. As far as remembering that far back—I can't remember that far back.

Q. Well, you are safe in saying, Mr. Henderson, are you not, that prior to 1900 there was no mine opened up where Glencoe now is?

A. No, I don't think it was prior to that; it was not over a year, if it was. As far as that particular date, I can't remember.

Q. It was considerably after that, however, before any extensive workings were opened up? A. Yes.

Q. The slope of No. 4 mine at Glencoe was extended down only about two hundred feet, was it not, and then entries
243 were run off? A. About that, yes, sir.

Q. And it was at a considerably later period that that slope was extended any deeper? A. Yes, sir.

Q. No. 2 mine, the next southerly, when was that opened up? I mean Cumberland No. 2.

A. Well, that was opened up before I was there, and I don't know anything about that except from hearsay; but it was years ago.

Q. Cumberland No. 1?

A. It was opened up before I came to the country.

Q. Why, Mr. Henderson, are you talking about Diamondville or Cumberland? A. I am talking about Diamondville.

Q. We misunderstood each other. I am asking about Cumberland No. 1 and No. 2.

A. Oh, Cumberland No. 1 and No. 2—I thought you referred to the Diamondville properties. Cumberland No. 1 and No. 2 was opened up about the same time.

Q. It was later, was it not?

A. They was both opened up about the same time, and I think that was in 1902.

Q. It was after you completed this railroad down there?

A. Yes sir.

Q. So, fixing the date from that, Mr. Henderson, you still think it was about 1902? A. Yes, about that.

Q. And at that time, of course, there was no previous workings there that indicated the coal in any manner; they
244 began at the surface and extended these slopes down.

A. Yes, sir.

Q. It was at a considerable later period than 1902 that any coal was opened up at any depth in either No. 1 or No. 2 Cumberland mines?

A. To any great depth, yes, sir, but they went right on opening up coal there right away. I believe they drove a thousand feet or more the first year.

Q. Now, Mr. Henderson, you have had considerable experience in coal mining and with coal veins, have you not?

A. More or less.

Q. And particularly with this particular vein on the east side of the valley? A. Yes, sir.

Q. That is the only commercial vein in this section of country, is it not? A. Yes, the only commercial vein.

Q. Now, you used the word 'want' a little while ago. Just tell us for the sake of the record what you mean by a 'Want'.

A. 'Want' means, geologically speaking, where no coal remains; that the vein is still there, but the coal is not there. It is in want; it has been replaced by dirt or rock, but the vein is still there.

Q. What have you to say with reference to whether or not it is a customary or usual thing to find what you term a 'want' in a coal vein? A. Yes, it is very common.

Q. And with reference to this particular vein, is it or is it not a fact that these wants are frequent?

A. Yes, they are very frequent in all the mines that are working.

245 Q. Now, these wants are of more or less indeterminate length along the strike, are they not?

A. Yes, and in the mine.

Q. What is the extent of some of the wants that you have seen in this particular vein?

A. Well, the largest one that I ever measured in the vein itself is in No. 3 Frontier, belonging to the M. Kemmerer Coal & Coke Company, which runs some twelve hundred feet where I have measured it, and that is the largest that I have measured.

Q. You don't mean to testify that there are not in this vein wants of much greater length along the strike than that?

A. I don't know of any; that is the largest one I know.

Q. But you don't say there are not?

A. Oh, no, I don't say there are not.

Q. Of course, if a man should happen to strike a piece of land that contained one of these wants along the strike, that land would not be valuable for coal, would it?

A. Not unless he drove past it.

Q. Now, with reference to this vein, you know where Kremmerer is, of course, and Diamondville? A. Yes.

Q. Is the coal continuous along the strike of this vein between Diamondville and Kremmerer? A. No, sir.

Q. As a matter of fact, do you know No. 1 mine of the Diamondville Coal & Coke Company? A. Yes, sir.

Q. What is the character of the vein—

A. Between Diamondville and Kremmerer?

Q. No, I didn't finish the question. What was the
246 character of the coal vein where No. 1 slope was sunk?

A. No. 1 slope, Diamondville?

Q. Yes.

A. Why, she made coal right away, right at the surface. There was commercial coal within fifty feet.

Q. How thick was the vein there?

A. I forget; I couldn't exactly remember; I think about fourteen feet.

Q. As a matter of fact, it was one of the best disclosures along this entire vein?

A. Yes, one of the very best.

Q. And that coal continued down to some extent?

A. To about the fourteenth entry, I think, or the thirteenth.

Q. And yet, in driving north and south in the entries along that vein, it absolutely pinched out, did it not?

A. I believe they have got fairly good coal to the south, but none to the north.

Q. Going north it cut off absolutely? A. Yes, sir.

Q. Now, there are other wants. Are you familiar with the Kremmerer coal mines, going south? A. Yes, sir.

Q. Do they likewise pinch out?

A. Yes, there is a want between the two; there is a want there of a mile and a half, that is, as far as proven.

Q. Now, has it been your experience in this particular section of country that some large areas which were supposed to contain this particular coal vein, and in opening which considerable exploitation had been done, showed that there
247 was no coal on the surface?

A. Why, in a way. I have noticed one or two holes in township 19, range 116 that shows a want. I have heard there was a want there, but I never examined it enough, only in one or two holes.

Q. You don't know anything about section 30, that lies between Cumberland No. 1 and Cumberland No. 2?

A. The property of P. J. Qualey, yes, sir.

Q. Do you know anything about whether or not there is coal under that section?

A. Why, I know that on the croppings at the surface Qualey had a very, very fine indication, but I have been down in No. 2 Cumberland, and, driving south, they ran into want. I never was in No. 1 Cumberland, but they have run into the same [fualt] or want down there, and that proves that section, or the lower half of that section worthless for coal.

Q. So that you have a concrete illustration right here in the immediate vicinity of this land and on this identical vein of a section that, at the outcrop promised exceedingly well for a coal mine, and upon exploitation became valueless?

A. Yes, sir.

Q. Now, then, I am going to try and take you back to the year, 1900, and to 1898 and prior to that. A. Yes, sir.

Q. Well, you only go back to 1899? A. Yes, sir.

Q. Well, in 1899, and the early part of 1900, or we will put it before No. 4 mine was started, was there any exploitation or development of any kind upon this coal outcrop at any point east of any of the lands in controversy?

248 A. Yes, sir.

Q. Whereabouts?

A. Still east of those lands—why, there was some holes I have never seen—when I first came in there in 1899 I found still east of this vein that we are speaking of, I found coal veins.

Q. You misunderstood me, Mr. Henderson; I just wanted to call your attention to the development along this particular vein? A. Oh, yes.

Q. Whether or not there was any development along this particular vein east of any of the lands in controversy in this section at that time?

A. No, not that I know of; I never seen any.

Q. As far as this country has been developed into a coal country, if at all, it has all been since that time, within comparatively recent years, since 1900?

A. All since 1900, yes, sir.

Q. Prior to that time there was absolutely nothing done here that would indicate whether or not there was going to be a coal country there or not? A. No.

Q. Now, I inquired with reference to wants along the strike. Is it within your experience and knowledge as a coal miner that you are liable to encounter the same thing, and frequently at any depth? A. Yes, they do it; yes.

Q. Is there any way, according to your knowledge, in which any person can prophesy as to what is going to be en-

249 countered in depth along a coal vein, at any considerable depth, beyond what the slope or entry discloses, from an examination of it?

A. Not unless the upper ground and the upper rock shows imprints where there has been a change in the formation.

Q. And that would be indicative of a cutting off or extinguishing of the vein? A. Yes, sir.

Q. But there is no way, geologically, in which any person can determine that coal will be continuous for any distance beyond what is actually disclosed, is there?

A. No, there is no way.

Q. Now, with reference to the surface lands, Mr. Henderson, they are alkaline, you say? A. Yes, sir.

Q. They are of the same general character as what we usually designate as rolling prairie lands, are they not?

A. Yes, sir.

Q. They support some native vegetation and grasses?

A. Yes.

Q. And as a matter of fact the grasses which do grow upon this character of land are exceedingly nutritious and valuable as fodders, are they not? A. Yes, they are good grazing lands.

Q. When you say that there is no farming in that immediate vicinity, you mean that no attempt has been made to cultivate the land?

A. No, there has been no attempt to cultivate the land.

Q. If the land was irrigated, it is susceptible of cultivation, is it not?

A. Oh, yes, if it was irrigated it would be very sus-
250 ceptible of cultivation.

Q. Not only would it be possible to raise crops, but you are quite satisfied that they could be abundantly and profitably raised?

A. You could positively raise crops with irrigation, yes, sir.

Q. Mr. Burke inquired of you as to some conversations that you had with Mr. Snedden. These occurred when, Mr. Henderson?

A. It was in 1900 or 1901, I am not positive, in the Daly Hotel.

Q. Had this conversation any particular application to any lands that are in controversy in this suit?

A. He mentioned no lands whatever.

Q. And it had no application, as a matter of fact, to the defendant company, the Diamond Coal & Coke Company, had it?

A. No, he never said anything about the Diamond Coal & Coke Company. I never knew there was any such concern then.

Q. You testified that Mr. Snedden was superintendent of the Diamond Coal & Coke Company? A. Yes, sir.

Q. That he has been during all the time that you have known him? A. Yes.

Q. Which has been as long as you have been in the country, I suppose? A. Yes.

Q. And that Mr. Harrison worked for the company in 1901 and 1902?

A. Yes, that is, to my knowledge. He worked there a couple of years.

251 Q. In answer to Mr. Burke's question, I believe you stated that Mr. Harrison was property man?

A. Why, that is what we called him at the time.

Q. That really means material man?

A. Material man or property man, yes, sir.

Q. What are the functions of a material man?

A. I believe to receive all goods—I don't know exactly, but I think it is, to receive all goods that arrive and to supply the mine with goods as they are ordered.

Q. The supplies that are used in the mines?

A. Yes, the supplies that are used in the mines and around there.

Q. Prior to the time that this railroad which is a branch, I believe, down this valley, that you were talking about, was constructed, there was no railroad in the immediate vicinity of these lands? A. No closer than the Oregon Short Line.

Q. That was over the range? A. Over the hill.

Q. Now, you said, Mr. Henderson, that you worked on some adjacent lands to these lands as long ago as 1900?

A. Yes, and later, since that.

Q. And that you drilled for coal?

A. No, I never drilled for coal; I never said that.

Q. You believed that the Diamond Coal & Coke Company drilled for coal? A. I have seen drilling outfits in there.

Q. And that they got no coal?

A. I don't know what they got.

Q. When Snedden had this conversation with you in

252 1901 or 1902 or along there, you were talking about scrip and he asked you how to use it? A. Yes.

Q. He was merely endeavoring to acquire some information, was he not, as far as you were concerned?

A. That was the idea, I believe.

Q. He did not at that time appear to be an expert in the use of scrip, did he? A. No.

Q. Will you please explain what is meant by the strike and dip of a vein?

A. The strike of a vein means along the outcrop or apex; the dip of a vein means its inclination downward.

Redirect Examination

By Mr. Burke:

Q. Mr. Henderson, you spoke of the possibility of these [lads,] if irrigated. There are none of them irrigated, are there?

A. No, none of them irrigated at present.
Q. There is no irrigation in the valley, is there?
A. No irrigation in the valley; there is no available water.
Q. Now, speaking of these mines that have been developed in the vicinity of the lands in controversy, to what depth do they go as now worked?
A. Well, I dont know their full depth, but some of them are as deep as three thousand feet.
Q. So they are getting to a greater depth than they would have to go on the lands in controversy, if your estimate of the dip of the coal found on the east side of this valley is
253 correct, and it extends under these lands?

Mr. Kelley: Defendant objects to that as leading.

Q. Is that true?
A. Yes, sir, they have gone to a greater depth than the coal would be on these lands.
Q. How early, if your knowledge, did prospecting take place for coal in this valley in which these lands in controversy lie? A. Ever since I have been there, since 1899.
Q. Do you know whether it had taken place prior to that time, by any evidence that came to you?

Mr. Kelley: Defendant objects to that as incompetent and immaterial, unless it applies to the ground in controversy.

A. No.
Q. Then, I understand you that development work had commenced in but one or two places prior to your going there in this valley?

Mr. Kelley: Defendant objects to this as leading.

Mr. Burke: It is cross-examination of your examination.

Q. You have answered Mr. Kelley; is that true?
A. Yes, sir.
Q. Mr. Kelley has asked you in relation to the comparative depth to which the dip would indicate that you would have to go in the various sections, and I understood you to say that it was at a less depth than thirteen hundred feet
254 in all of them with the exception of sections 12, township 19, range 177.
A. No, I didn't make that assertion exactly. I said that it would be less than that, with the exception of 12-19-117, and 18. I had made a statement before in regard to 18.
Q. And there you said it indicated thirteen hundred feet?
A. About thirteen hundred feet or more; from that to a greater depth.

Q. And as to all the other sections, with the exception of 12, it would be less?

A. A small amount less.

Q. Now, what would you say as to section 12-19-117?

A. I would have to look up that map a little.

Q. That is this section over here?

A. Well, roughly speaking, in estimating it, I should say that that would be two thousand feet; that is a rough estimate; I never figured it.

Q. That is about what the dip would bring it to?

A. That is about what the dip would bring it to at that depth.

Recross Examination

By Mr. Kelley:

Q. Counsel asked you first in regard to irrigation. You said no water was available. Are you familiar with the location of Ham's Fork? A. Yes, sir.

Q. It runs up from Diamondville north? A. Yes.

Or rather, it runs south? A. Yes.

255 Mr. Burke: Plaintiff objects to this as not proper recross examination. If they desire to make the witness their own for that purpose, I have no objection.

Mr. Kelley: It is going into a matter that you brought out on redirect.

Mr. Burke: You brought it out on cross-examination and I asked about it on re-direct.

Q. You are familiar with the location of Ham's Fork?

A. Yes.

Q. It runs south, but it extends up the valley away above Kemmerer? A. Yes.

Q. Wouldn't it be a very small matter to take a ditch out of Ham's Fork and bring the water down on to this valley?

A. It would be a very, very heavy enterprise.

Q. Why?

A. Well, because you would have to cross that ridge in a very rough, rocky country to get through, and in the second place you couldn't get a water right out of Ham's Fork, because it is overtaken.

Q. The Diamond Company has a right, hasn't it?

A. Well, they cannot divert it from their mines to irrigating purposes?

Q. Is the flood water appropriated?

256 A. Well, it is not all appropriated, I don't think.

Q. Do you know about the dry farming system?

A. Yes, sir.

Q. Do you think you could raise crops there that way?

A. Well, I don't know; it never has been.

Q. Has it been tried?

A. I don't know; I wouldn't want to try it.

Q. You testified about mining in depths, Mr. Henderson. In giving the depths beneath the surface of these various sections, you have taken the line closest to the outcrop of the vein in each case, the east line?

A. Yes, sir, the east line.

Q. And as the line extends westerly, of course, assuming that the vein does dip beneath these lands, it would increase in depth? A. Yes, sir.

Q. Now, you said also that they have mined in some of these mines three thousand feet in depth? A. Yes, sir.

Q. That is along the slope? A. Yes, along the slope.

Q. Not vertically?

A. No, it is just on the slope.

Q. As a matter of fact, that would be about how deep vertically?

A. Well, now, that is a pretty hard example to get at without making a calculation.

Q. It would be approximately a thousand feet?

A. Very close, yes; it wouldn't be quite that much; about nine hundred and something.

257 Q. And that is just about the limit of this coal that you can mine, is it not?

A. Well, it is apparently the limit that they wish to here.

Q. After that, if you endeavor to mine the coal, it is impossible to support the overhead without leaving so much coal in the mine that it is impracticable to mine?

A. Yes, that is so.

Q. And in addition to that, after that depth the weight of the over strata is sufficient to cause the coal to granulate and to become practically non-commercial?

A. No, I don't believe that. I think the more weight, the better the coal.

Q. In the formation. But in taking it out, isn't that true?

A. What do you mean, in the formation?

Q. You get better coal in the formation of the coal?

A. Yes.

Q. But in the extraction of the coal you don't get as good commercial coal?

A. You get better commercial coal, but more expensive coal.

Q. As a matter of fact, the expense of taking it out under present conditions, the conditions as they have been mining for the last ten years in the coal mines, it makes it impracticable to mine?

Mr. Burke: Plaintiff objects to this as not proper recross examination.

A. As far as the profit of the coal is concerned at that depth, I am not well enough posted on the cost of the
258 present mining.

Q. You do know that, out in that field in No. 1 and other mines, they abandon the coal when it gets below that depth? A. Oh, yes, yes.

Q. One more question about mining in depth. It would be impracticable, would it not, as a mining proposition, for anyone who did not own the outcrop of a vein to attempt to mine out here under 18, 30 and 6 and 18, these sections here?

Mr. Burke: Plaintiff objects to that as not proper re-examination.

Q. It would, would it not? A. Yes, sir.

Q. Assuming now for the purpose of the question that this vein extends in all of its value out under these sections, if a person owned these sections of land that are in controversy here, as segregated parcels, could they sink vertically and mine that coal?

Mr. Burke: Plaintiff objects to that as not proper re-examination.

A. Why, it don't look to me like a profitable enterprise.

Q. Therefore, assuming that the coal extends in all of its value under these lands, they are not coal lands within the meaning of the term, as being lands which can be worked profitably for commercial coal if you regard the ownership as segregated from the ownership of the outcrop?

Mr. Burke: Plaintiff objects to that as not proper recross examination and as calling for a conclusion of the witness, who has not qualified to give conclusions.

259 Mr. Kelley: I am sorry that you are impeaching your witness.

A. I know part of them it would be impossible to work as coal mines that way, while others might be worked, I couldn't say. I am not well enough acquainted to be prepared to answer that question.

Q. But by far the larger portion of the lands in controversy here, they would not be coal lands within such a designation.

Mr. Burke: Plaintiff makes the same objections, in that it is improper cross-examination, and calls for a conclusion of the witness.

A. Well, no, not in that case.

(Witness excused.)

Whereupon further hearing was adjourned until 1-30 P. M. of this day.

260 Thursday, Jan. 23rd, 1908, 1-30 P. M.

Alex Nesbit, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. Alex Nesbit.

Q. Where do you reside? A. Evanston, Wyoming.

Q. How long have you resided in Uinta County?

A. Nineteen years.

Q. What official position do you hold at the present time?

A. Town Treasurer of the town of Evanston.

Q. I will ask you if you are acquainted with Thomas Snedden? A. Yes, sir, slightly.

Q. How long have you known him?

A. About eighteen or nineteen years.

Q. I will ask you if you are acquainted with the lands in controversy in this case?

A. To a certain extent; I have been over them probably five or six times.

Q. You know where they are? A. Yes, sir.

Q. Did you ever have any talk with Thomas Snedden prior to his making homestead entry upon these lands, in relation to them? A. Yes, sir.

Q. When did you have that and where was it?

261 A. Well, it was, first, I think, in the County Clerk's office. I was then deputy County Clerk.

Q. And when?

A. I cannot remember right now just what year it was.

Q. Was it prior or subsequent to his entering this land?

A. It was prior to the entries being made.

Q. What was that conversation had with him; did it have relation to his intention in the taking of them?

Mr. Kelley: Defendant objects to that on the ground that it is incompetent, immaterial and irrelevant, first, because no proper foundation has been laid for the introduction of the question or the answer to the question; second, because any statement of a conversation or of statements made by Thomas Snedden would not be binding upon the defendant in this action, for the reason that it has not been shown that any such statements were made by Snedden while acting in any capacity that

would bind the defendant corporation; furthermore, it has not been shown that the defendant corporation had, at the time when it acquired title to the lands in controversy, any notice or knowledge of that conversation or of any matter connected therewith.

Mr. Burke: I will withdraw that question for a moment and ask another question.

Q. What was Snedden's business at the time you had this conversation; that is to say, what position, if any, did he hold in connection with the Diamond Coal & Coke Company?

262 A. He was superintendent of the Diamond Coal & Coke Company.

Q. At that time? A. At that time.

Mr. Burke: I will now repeat that question.

Q. (Question read.)

A. I cannot answer definitely now; I could not remember without looking it up. I can tell from the records, by examining the dates of the locations, of the filings of the homestead.

Q. It was prior to his taking the lands?

A. Yes, prior to the entries being made.

Q. And, as I understand you, it was at a time when he was superintendent of the Diamond Coal & Coke Company?

A. Yes, sir.

Q. State what that conversation was.

Mr. Kelley: We renew our objection.

A. The conversation was, in substance, that he thought there was a lot of lands over there that was vacant, and which could be taken up by homestead entry if we could find a number of people that was willing to make the entries, and he thought that some money could be made out of the deal, by reason of being able to sell the coal lands to some coal company. He believed there was coal in the lands, but he could take them up by homestead entries if he could get homesteaders to make the entries. I think that was about the substance of the conversation.

263 Mr. Kelley: In addition to our objection, we move to strike out the answer of the witness on the ground that it is incompetent, irrelevant and immaterial and does not tend to support or disprove any of the issues in this case.

Q. Did you ever have any conversation with him afterwards in relation to that matter? A. Yes, sir.

Q. What was that conversation?

A. He spoke about making the filings, and getting men in Alma and Diamondville to go over that way, and he gave them

work and got them to make entries on the lands that we had spoken of before.

Q. Did that relate to the lands upon which he, personally, had placed Soldiers' additional homestead entries, or did it relate to other lands in that vicinity?

A. I could not answer that without examining the records; I had it in my head at the time, but I have forgotten. I should judge this was probably eleven or twelve years ago.

Cross-Examination

By Mr. Kelley:

Q. Now, Mr. Nesbit, you had these conversations with Mr. Snedden upon two occasions, as I understand you?

A. Yes, sir.

Q. One before and one after the filings were made?

A. Yes, sir.

Q. And this last conversation that you had with him, you don't remember distinctly the particular lands, because it is some time ago?

264 A. No, I couldn't recall the description of them, but I know they are in that township 16 and 17, range 120. I couldn't describe the lands by subdivision or sections.

Q. It is some eleven or twelve years ago since you had this conversation with Snedden?

A. I should judge it is eleven or twelve years ago, may be a little less, may be a little more.

Q. Now, Mr. Snedden told you, in the first conversation, that he thought that some money could be made by getting people to go over and enter homesteads, then afterwards sell the land to a coal company. Is that the substance of it?

A. Yes.

Q. Did he designate the particular lands that he thought that could be accomplished with, or did he merely say that he knew of some lands?

A. No, he gave me the descriptions by section, township and range at that time.

Q. In this conversation Mr. Snedden went to the trouble of designating the particular legal subdivisions of the lands he would file on, did he?

A. I helped to examine and found them for him on the map.

Q. Did Snedden propose this to you, or did you propose it to Snedden? A. No, he proposed it to me.

Q. You examined the records, I suppose, at his request?

A. Yes, to find out if there were any filings on it, if it was clear.

Q. Then, afterwards Snedden told you that he got some people from Alma and Adaville to do this?

A. Yes. Not Adaville; Diamondville; Alma and Diamondville.

265 Q. From Diamondville and Alma? A. Yes, sir.

Q. Did he tell you who?

A. Yes. You will find their names on the record up there. I think I could repeat some of them; they are all on the record up there.

Q. The trouble is that the records do not show that you are testifying to the facts with reference to the matter, Mr. Nesbit. Have you examined the records as to the particular lands in controversy? A. Not lately.

Q. No, I thought not. Now, as a matter of fact, you sold some land to the company yourself, didn't you? A. No, sir.

Q. Did your brother?

A. I don't know anything about my brother.

Q. Did you and your brother make any homestead filings?

A. I made one once, yes.

Q. Where was that? A. That was in Diamondville.

Q. Was that in the vicinity of these other lands that Snedden spoke to you about?

A. No, I think it was further up the hill.

Q. Which direction do you mean by up the hill?

A. I don't know just exactly whether it is north, east or south or west; I don't know that country very well as far as that matter is concerned. It is right straight up the hill from the mines, on the left hand side, the way the mine runs down like this, and it is on the left hand side, straight up the hill, where my brother made the location.

266 Q. What land did Snedden specify to you in this conversation?

A. I can't remember the exact sections. I answered that question once before, I think.

Q. You will pardon me for asking you again. Can you remember any of the legal subdivisions at all?

A. No, I don't think I can without examining the record, I could tell by examining the record.

Q. Then, how do you know that the conversations were with reference to the lands in controversy in this action?

A. Well, I know there was a good many in township 16 and 17, range 120, and I understand that is where the lands in controversy are.

Q. You do. If I should inform you that you are only two or three ranges off, would you wish to modify your evidence with reference to the matter?

A. Yes, if I am wrong. If I had a map I think I could tell you exactly where it is. I haven't got these descriptions in my head, as I said already. I am not in that business.

Q. These lands that Snedden spoke to you about are in range 120? A. Well, I think so.

Q. Now, tell me the lands that are in controversy in this suit. A. I haven't got them in my memory.

Q. You don't know what they are, as a matter of fact, do you, by legal subdivisions?

A. No not by legal subdivisions.

Q. To be fair about it? A. No.

267 Q. You know that this suit is with reference to some land up in the vicinity of that country? A. Yes.

Q. And you know one time Snedden spoke to you about some lands up in the vicinity there, at Diamondville?

A. Yes.

Q. And to be perfectly fair about it, that is all that you really know about the matter, isn't it?

A. Well, I say again that I don't know the exact descriptions.

Q. Were you subpoenaed to testify in this case?

A. Yes sir.

Q. When? A. About fifteen minutes ago.

Q. Had you ever talked with any of the Government representatives, agents or attorneys, prior to that time?

A. No, sir. Mr. Bailey came there and subpoenaed me about fifteen minutes before I came in here.

Re-direct Examination

By Mr. Burke:

Q. Now, Mr. Nesbit, what is the fact as to whether or not this conversation, or these conversations to which you have referred, related to lands which Mr. Snedden afterwards filed upon with Soldiers' additional scrip?

A. Well, some of the lands were filed on by Soldiers' additional scrip.

Q. By Mr. Snedden?

A. By Mr. Snedden, some of the same lands that we talked about. I know that from the examination of the records,

268 both of the Land Office and of the County Clerk's office. I examined these myself after that.

(Witness excused.)

269 H. E. Christmas, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. You may state your name. A. H. E. Christmas.

Q. Where do you reside?

A. Kemmerer, Uinta County, Wyoming.

Q. How long have you resided there? A. Nine years.
Q. And where, if at all, did you reside within the state prior to that? A. At Rock Springs.
Q. How long did you reside there? A. Twelve years.
Q. And what is your business?
A. I am an attorney at law.
Q. Are you acquainted with the lands in controversy in this case?
A. By general location; not by an accurate description.
Q. How frequently have you been over or about them?
A. I drive over them possibly twenty or twenty-five times during the year going from Kemmerer to Cumberland.
Q. And can you state as to what their character is, from observations made by you, as to their being agricultural or coal in character?

Mr. Kelley: To which defendant objects on the ground
270 that it is incompetent, irrelevant and immaterial, no proper foundation having been laid. The witness has not qualified to express opinions of the character asked for.

A. I think so.
Q. What is the fact?
A. The lands on the surface are ordinary, sage brush, alkali lands. There is an occasional outcropping of coal, but I would like to say it is simply a black, coal deposit on the surface that I saw; how far down it goes I know nothing at all about.
Q Answer the question, now, as to what the character is as to coal or agricultural.
A. To the best of my knowledge of it, it would be coal land; it certainly is not agricultural land.
Q. Now, go on and explain why you say that.
A. I make my statement simply by noticing, as I have driven over the land, that there are a few places where the coal croppings show on the surface, and at other points I have seen where the badgers and gophers have shown up the stain of coal with a little slack in it.
Q. Then, what is the character of the lands both lying east and across the valley west, as to being coal bearing, and what knowledge have you of them?
A. There are coal outcroppings in the mountains on both the west side and on the east side of the flat.
Q. And is there a railroad down in that valley?
A. There is a railroad, a branch of the Oregon Short Line, known as the Western Wyoming road, about eighteen miles long, that goes to Cumberland and brings in the coal from Cumberland and connects with the main line of the
271 Oregon Short Line.
Q. How many coal mines are there along on that eighteen miles that are operated?

Mr. Kelley: Objected to on behalf of defendant on the ground that it is entirely immaterial, unless these mines are located upon the premises in controversy, and were operating prior to the time or at the time when these entries were made.

A. There are three mines, to my knowledge, known as the Glencoe mine, and mine No. 1 and No. 2 of the Union Pacific Coal Company.

Q. Do you know anything about the amount produced by those mines?

Mr. Kelley: The same objection, immaterial.

A. I do not.

Q. What is the business of this railroad that runs down there?

A. Purely to bring coal to the main line of the Oregon Short Line.

Q. To what extent have you traveled over the country both north and south from these lands in controversy and east and west; have you ever hunted that country over?

A. Yes, I have hunted it all over.

Q. Have you made any observations as to its coal outcroppings and the extent to which these reach?

A. Not a particular observation, any more than as I might incidentally see, as I was passing by.

272 Q. To what extent—to what number of miles, as you observed this country as to its being coal bearing or a coal country?

A. Ignorant of coal formations, as an ordinary citizen I was under the impression simply that it was a general coal country.

Q. For what distance?

A. I think I can safely say over the entire Uinta County.

Q. Now, you say that that is not agricultural land. What value has it as grazing, or for its use other than coal, if any, if you know?

A. Under the ordinary amount paid or the values paid by sheep or cattle men, I should judge it would be worth fifty cents an acre for grazing purposes.

Q. Have you been in the real estate business?

A. Yes, sir.

Q. And have knowledge of values of land in that vicinity, in that part of Uinta County? A. Yes, sir.

Q. What kind of soil is it?

A. In the particular land in question it is an alkali loam, unfit for agricultural purposes.

Mr. Kelley: Defendant objects to this unless this witness is going to qualify on soils.

Q. Are you acquainted, Mr. Christmas, with the lands and character of lands that are utilized in Uinta County for agricultural purposes? A. Yes, sir, I am.

273 Q. Is this land of that character?

A. No, indeed not.

Q. What is possible as regards the irrigation of these lands?

Mr. Kelley: Objected to on behalf of defendant on the ground that the witness is not qualified, except by holding a position under the United States Government.

A. There is no available water there to my knowledge.

Q. Are the lands fenced? A. No, sir.

Q. Or farmed in any way? A. No, sir.

Q. Have they been?

A. Not to my knowledge; not since my acquaintance with them.

Q. Are there any houses or improvements on them of any character?

A. There were some buildings there a few years ago, I could not state what year it was; there were cabins on the lands.

Q. And what was the character of those?

A. They were the customary buildings used by settlers, frame buildings, I should judge about fourteen by sixteen feet, one story.

Q. And windows or doors? A. Yes.

Q. How many?

A. Well, I couldn't say; I never examined them particularly.

274 Q. What were they in numbers, along scattered up and down the valley, or only one or two?

A. Well, they were scattered around. I can safely say that I saw five or six.

Q. What were they, all of the same character?

A. All of the same character.

Q. Anyone living in them? A. I don't know.

Q. Did you see anyone there?

A. They were not close to the road and I don't know whether anyone was living in them or not.

Q. Do you know who put them there? A. I do not.

Q. Or whose lumber it was that built them?

A. I do not.

Cross-Examination

By Mr. Kelley:

Q. Mr. Christmas, you are an attorney at law?

A. Yes, sir.

Q. I believe you say that you reside and practice at Kemmerer? A. Yes, sir.

Q. What, if any, official position do you hold?

A. United States Commissioner.

Q. When were you appointed to that position?

A. On the 11th of April, 1904.

Q. Was Mr. Burke instrumental or of assistance in obtaining the commission?

275 Mr. Burke: Objected to as incompetent, immaterial and irrelevant. It has not yet come to the point where it is a badge or fraud or an imputation of evil if one holds a United States office.

Mr. Kelley: Oh, no, not at all; it is not with that purpose.

A. He was not.

Q. As a usual thing, in Government practice, the United States Attorney is instrumental in selecting commissioners, is he not, or do you know of that?

A. It is a matter, to the best of my judgment, which rests entirely with the United States District Attorney, the appointment of commissioners in his district.

Q. Are you in Mr. Burke's district? A. I am.

Q. Yet I understand you to say that he was not instrumental? A. He was not, to my knowledge.

Q. Now, Mr. Christmas, of course, you do not qualify as a geologist, do you? A. I do not.

Q. You do not wish to be understood as expressing any geological opinions with reference to the character of these lands, the formation or the occurence of coal?

A. I do not. I think I qualified my reply by saying that I simply gave it from casual observations, and replied in that way.

Q. You never made any study of these lands for the purpose of making an accurate, close and correct classification of them? A. Absolutely not.

276 Q. The information which you possess, Mr. Christmas, is that which a person would ordinarily acquire in simply driving over and observing the country?

A. Exactly.

Q. Now, in driving from Glencoe down to Cumberland No. 1 and No. 2, what road did you travel?

A. In the last two years there is what is known as the upper road, which is a direct line from Glencoe to the Cumberland properties, and for the last two years I used that one. Prior to that I have taken what is known as the lower road, which is a winding road through the valley to Cumberland.

Q. Does this upper road cross any of the premises that are really in controversy in this action?

A. I am unable to answer that question.

Q. As a matter of fact, Mr. Christmas do you not pretend to know exactly, upon the ground, where the legal subdivision lines are placed, do you?

A. I do not, only as a general conclusion.

Q. Are you, in fact, familiar by designation, even, with the particular land that is in controversy here?

A. I am not, any more than I have located in my mind certain lands in townships 18 and 19 in range 116; that would be as far as I could go.

Q. And you know that up there in this valley somewhere is the situs of the ground embraced in this action?

A. Yes, sir.

Q. Now, when you spoke of the coal outcropping which you had observed, you referred to the coal vein which traverses on its strike through the foot hills on the east side of the valley, I presume?

277 A. Yes, sir.

Q. You don't know that any part or portion of that coal vein is within or beneath any of the lands that are actually in controversy in this case?

A. I could not say that it was, no, sir.

Q. Nor can you tell the Court how far east of the east line of any of the ground actually embraced within this controversy, this coal outcrop occurs?

A. No; I am not familiar with the lines.

Q. Nor can you tell, assuming that the vein descends into the earth westerly, at what, if any, depth it would enter beneath the surface of any of these claims? A. No, sir.

Q. Nor can you tell whether or not the coal that you have observed on this outcrop is of a merchantable or marketable character where you observed it? A. I could not.

Q. Nor do you know whether any of the lands which are embraced in this controversy could be worked profitably as a coal mine? A. I do not.

Q. Nor can you tell whether they are more valuable for coal mining purposes than they are for agricultural purposes?

A. That calls for a qualification of my former reply, for the simple reason that there is absolutely no agricultural product on the land, and even if there were only one ton of coal exhibited in this outcrop, that one ton would more than cover the value of the entire land.

Q. But if there is not one ton of coal?

A. Then, it would be a matter of a question for the opinion of an expert, which I do not claim to be.

278 Q. Now, according to your testimony, you convey the impression to me, Mr. Christmas, that all lands which are not agricultural may be valuable for coal. Is that the idea?

A. That, I think, would be the construction that would be placed upon my reply.

Q. So that you are really intending to convey this meaning, to be fair about it, that you estimate the land as of but little value for agriculture, and it may be valuable for coal?

A. That would be my reply.

Q. Of course, as to its actual value for coal you have no knowledge?

A. I have no knowledge; I dont know anything about it.

Q. Now, in this valley, with which you are somewhat familiar, as you go westerly from this vein that you have described and upon which these mines are located, for the purpose of fixing it, there is no vein of coal exposed anywhere until you cross the valley clear over to the other hills?

A. Known as the 80 foot?

Q. There is no coal in the intervening distance?

A. No, not my knowledge.

Q. Now, about these mines. Is it within your recollection when these various properties began operating, to-wit: the Glencoe and Cumberland No. 1 and No. 2?

A. Yes, but I couldn't tell you when. It was since I have resided in Kemmerer, but I couldn't tell you the year.

Q. Oh, yes, it was long after you began to reside in Kemmerer. A. Yes.

279 Q. As a matter of fact, they began their first exploitations there in the latter part of the year, 1900, did they not, or about that time?

A. I really don't remember any coal being put [put] from Glencoe till about 1903.

Q. That was about the time they completed the railroad down there? A. That is my impression, yes, sir.

Q. But they had begun the exploitation of the property before?

A. There had been prospect holes on the side hills.

Q. Are you familiar with the dates of the entries in this case? A. I am not.

Q. You don't know whether there was any exploitation or coal development there at all in that region prior to the time of these entries? A. I do not.

Q. Nor do you know what nature or to what extent any coal had been uncovered? A. No, sir.

Q. You don't know now; you never have examined that?

A. I never have examined it at all.

Q. Now, this land that you describe as an alkali loam—
A. That is the best description that I can give of it.
Q. What is alkali? A. Its chemical formation?
Q. Yes. A. I am not a chemist.
Q. How do you know it is alkali?
A. From its appearance and its location.
280 Q. Can you tell alkali from its appearance?
A. Well, when I find it through sage brush and such formations as that, I have always referred to it as alkali.
Q. Any white efflorescence on the surface of a sage brush country, you would regard as alkali, would you?
A. Yes, sir.
Q. And that is what you mean by alkali in this case?
A. Yes, sir.
Q. Do you say it is a loamy soil?
A. Yes, a loamy soil.
Q. Do you know what a loam soil is? A. I think I do.
Q. What is it?
A. It is a black, mellow substance which we usually find on the surface of the earth.
Q. Is loam necessarily black?
A. Well, I am not claiming it as being black. It is a mould.
Q. It is not a soil, then, it is a mould?
A. Well, it is a soil.
Q. Now, as a matter of fact, loam is the very best and productive character of soil, is it not?
A. With water or without it?
Q. I don't know that, as far as the character of the land is concerned, it makes any difference; it might in the product, but I am speaking about the character of the soil itself. Loam is regarded as the very best kind of soil, is it not?
A. For agricultural purposes, yes, sir.
Q. There is some native vegetation on these lands, is there?
A. Yes, sage brush, and the ordinary amount of wild
281 grass that grows in contact with it.
Q. And it might be productive with water?
A. It would be excellent land with water.
Q. Without it, it affords some pasturage and grazing?
A. Yes, sir.

Redirect Examination

By Mr. Burke:

Q. Mr. Christmas, do these evidences which you referred to in your direct examination, that you spoke if as coal land, were they [b here] and apparent when you first went to the country, as at present, other than the openings that have been made?

A. Yes, sir. I am paying no attention to the openings in my statement.

Q. Now, then, as to your testimony, does the fact that you are United States Commissioner have anything to do in any way with your testimony? A. Absolutely not, sir.

Q. The fact is that you have never had any conversation with me or any correspondence with me in relation to this case until last evening, after you came here as a witness?

A. I have not, sir, until last evening.

Q. It has not been a matter of confidence at all between you and me? A. Absolutely not.

Q. Then, the matter of your being United States Commissioner is merely an accident and an incident that has no influence at all on this case? A. Not to my knowledge.

Q. Or on your feelings?

282 A. Or on my feelings.

Recross Examination

By Mr. Kelley:

Q. You were subpoenaed at Kemmerer?

A. At Kemmerer.

Q. Can you explain by what process of mental telepathy or occult science Mr. Burke became aware of the fact that you were to be a witness, or had you subpoenaed, if he never saw you? A. No, I couldn't state that.

Q. I want to ask you one question, Mr. Christmas, about the land up there. You say it is worth probably fifty cents an acre?

A. I am making that statement, that sheep men and cattle men around in that vicinity usually pay on an average about that price for grazing purposes, and this would be about the same class of land that they would pay that for.

Q. Fifty cents per year per acre? A. Yes, sir.

Q. Isn't it a fact that sheep men and cattle men, under the laws of your state, are required to pay at least a dollar an acre for such land?

A. I am not familiar with what the fees are that they pay to the state.

Q. Haven't you ever seen in your practice, or prepared or observed any of the state land leases? A. Yes, often.

Q. Have you noticed the consideration?

A. Not particularly; I don't know that I have ever
283 made any of them out. I have acknowledged some of them, but I don't know that I made any of them out.

Q. You don't know what the rate is, and if you have a statute you don't know it?

A. I don't know what the statute is; I never paid any attention to it.

Q. You don't know what value is placed upon land leases in that locality? A. State land leases?

Q. Yes.

A. No, I couldn't testify to that under oath.

Redirect Examination

By Mr. Burke:

Q. Aren't you mistaken? Isn't it five cents an acre a year?

A. Well, I don't know. I know there has been offers made, that men came who wanted to rent land in that vicinity, who were willing to pay fifty cents an acre a year. That is the reason I stated that.

Q. What does that land sell for, as farm land or agricultural land? A. As a desert entry?

Q. Well, from the railroad company?

A. A dollar and a quarter an acre.

(Witness excused.)

284 Robert S. Spence, being called for a witness for complainant, after being duly sworn, testified on oath as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. Robert S. Spence.

Q. Where do you live? A. Evanston, Wyoming.

Q. What is your business? A. I am a lawyer.

Q. I will ask you if you have worked at any time with the Geological Surveys of the National Government?

A. Yes, sir, I have worked every summer for the last four or five summers.

Q. I will ask you if you are acquainted with the land in controversy in this case?

A. If you will tell me what the land is—

Q. That is the land, the descriptions of which were read over to you last evening from the bill of complaint in this case. A. Yes, sir.

Q. How long have you been acquainted with that land?

A. I have been acquainted with that for—that is, more particularly for the last seven or eight years.

Q. To what extent have you become acquainted with that?

A. Well, I have been over the land. I never examined that with any degree of accuracy, but I have been over that and I know the structural formation of the country there and of these lands; I have been on them and over them and

285 examined them for coal, etc.

Q. Have you examined any particular section or part of a section for coal in the vicinity of these lands?

A. Yes, sir.

Q. What section was that?

A. Section 24, township 19, north, range 117.

Q. To what extent did you examine that and the lands in the vicinity to ascertain as to whether they were coal bearing or otherwise?

Mr. Kelley: Defendant objects to this on the ground, first, that it is incompetent, irrelevant and immaterial, for the reason that the witness is not qualified to express any opinions concerning the matter; second, because the land does not embrace any of the land in controversy in this action, particularly the subdivision mentioned, section 24, township 19, range 117 west, not being any part of the land in issue in this case.

A. In March, 1900, I went over into that section to locate section 24, township 19, range 117, as coal bearing. To determine the location of it, I started from a Government corner that I knew to exist on what is called the Whitney ranch, and with a pocket compass I ran a line as near as I could for about three miles, or three and a half, until I determined my location. I then examined all that country pretty thoroughly, and saw the coal croppings on the surface. I then followed these, I measured those dips, and I followed the coal indications, and I went west and across the section that I was intending to enter, and I investigated that section of country pretty thoroughly on that occasion. I was there two days on my examin-
286 ation.

Q. And from the examination that you made at that time and any other since, can you say as to whether or not the lands in controversy in this case and those adjacent thereto are more valuable for coal or for agriculture?

Mr. Kelley: Defendant objects to that on the ground that the witness is not qualified to answer the question; upon the further ground that it is incompetent and immaterial under the issues of this case, and does not tend to prove or disprove the character of the land at the time the entries were made.

A. I have been over these lands for a number of times since then, and my opinion is that all the lands within a radius of seven miles around there are, strictly speaking, coal lands, and I am free to say that they are absolutely worthless for agricultural or any other purpose, except for the habitation of horned toads. There might be a little on it—

Q. When you first visited these lands in controversy in this case and saw them, were they fenced? A. No, sir.

Q. Were they under cultivation of any character?

A. No sir.

Q. Were they being used in any way for agricultural purposes? A. No, sir.

Q. What is the fact as to any use that has been made of them since, within your knowledge?

A. I don't know that there has been any use made of them since except by roving bands of sheep. They are not controlled or owned by anyone that I know of, that is, no ownership exercised over them.

287 Q. What is the character of the soil of the lands in controversy, if you know?

A. Well, in the valley it is largely detritus, largely a wash from the mountains, and strongly impregnated with alkali, a white alkali formation; there is a white alkali deposit there.

Q. Any rocks?

A. Yes, there are rocks. There is a ridge, which is a kind of branch of what is known as the Oyster Ridge, which extends throughout this whole country, north and south, and that ridge extends down into the valley considerably, that is, the rocky formation extends down into the valley a considerable distance, that is, the little valley that is adjacent thereto, but part of these lands, that is the tier of sections along the western part of range 116 and the eastern tier of townships in 117, more or less, there is a ridge running through there, and there is more or less of a rocky ridge showing.

Q. You spoke a little while ago about the dip of the coal vein as you found it there in your exploitations in relation to section 24.

A. Yes, sir.

Q. Could you offer any accurate knowledge as to what that dip was?

A. At the Cumberland the dip is twenty-two degrees, and as you go further, a little way beyond Cumberland No. 2, it is eighteen degrees, and as you go about three miles this side of Glencoe, it lies as high as twenty-eight degree dip. The normal dip is ten degrees.

Q. And what, if any, examination did you make of the western ridge going to bound this valley in which these lands lie?

288 A. There are coal croppings all along that western ridge, the other side of this incline.

Mr. Kelley: Defendant wishes to be understood as making the same general objection to all this testimony as to the lands not embraced in the controversy, without repeating it.

Mr. Burke: Very well.

Q. Was there any railroad in that valley when you first visited it? A. No, sir.

Q. Have you been there since the railroad has been there?
A. No, sir.

Cross-Examination

By Mr. Kelley:

Q. You say you have not been down there since the railroad has been constructed?

A. That is, not on any examination. I have been over there on the wagon road; I have driven between Diamondville and Kemmerer, but I never made any examination or anything of that kind.

Q. You are a lawyer, I understand, by profession?

A. Yes, sir.

Q. And a geologist by avocation?

A. By choice. I am not a geologist; I say I belong to the United States Geological Survey; I belong to the Paleontological Department, and every summer I go out with Dr. Welcott;

289 I have been out with him every summer for the last few years.

Q. You say that you belong to the Geological Survey in the capacity of assistant?

A. I am a special collector, but I get my pay from the Government in the summer months when I am out working in the field with the field surveys.

Q. You are a paleontologist, then? A. Yes, sir.

Q. Do you wish to qualify as such?

A. No, I don't, no.

Q. Then, you are not one?

A. Well, I don't claim to be a professional. I am a lawyer by profession, but I choose that as an avocation which I want to follow.

Q. You are familiar with the geological structures, you say, in this country? A. Somewhat.

Q. What is the geological structure of this particular valley up there?

A. Well, do you mean what is the geological formation up there?

Q. Yes.

A. The structural part of it. Well, it is the upper cretacious. The coal formation there is the upper cretacious, and there is a transition period between the upper cretacious and the tertiary, known as the Laramis Epoch, and it is a peculiar transition period, and it is hard to determine whether these coal measures are confined strictly to the upper cretacious or to the lower tertiary, or run into this transition epoch.

Q. What is your opinion about the matter?

290 A. My opinion is that they are upper cretacious. Those fossils that I collected there, and fossils that we collected

in that neighborhood are cre[illegible]ious fossils, that is, as far as I know. You cannot tell cretacious fossils from Laramie fossils unless you are purely an expert.

Q. You think they belong to the Laramie Epoch?

A. I think the coal is in the upper cretacious, yes, sir.

Q. You disagree with Dr. Veach of the United States Government?

A. I don't know Dr. Veach; I know of him, but I don't know him. I have my own opinions about those matters, though.

Q. And you have made a geological study of this country, as I understand it? A. No, sir, I have not.

Q. Are the opinions that you are expressing with reference to the occurrence of coal from any geological examination or mere casual observation?

A. Just a mere transitory observation, a casual observation, that is all.

Q. When you use the term coal, what do you mean?

A. Well, I use the term coal as generally applied to deposits of coal in this country.

Q. What is coal? A. Do you mean the chemical formula?

Q. What is coal? A. Well, coal is coal, I judge.

Q. Is that as near as you can come to it?

A. You don't want me to go into the chemical composition, do you, or anything of that kind?

A. No, I want to know what coal is.

A. I can't tell you, except that it is coal, that is all.

291 Q. When did you make this examination of this particular territory? A. In March, 1900.

Q. Since that time you have not been very familiar with this particular territory?

A. No, sir, only I have been over it a number of times, and of course, I observed things as I passed over the road.

Q. What ground is in controversy in this action?

A. Well, I dont know, except what the subpoena states when I saw it yesterday when it was served on me, that it is the United States against the Diamond Coal & Coke Company.

Q. I am not asking for the issues; what ground, what territory?

A. Oh, I thought you said what are the grounds of the controversy.

Q. I dont ask you your opinion as a lawyer.

A. Well, I thought it was a funny question to ask. The ground, if I understand it, is embraced in townships 19, 20 and 21 north of range 116, that tier of sections on the west side, and also a tier of section on the east side of range 117 west.

Q. Where did you get that idea?

A. I got it from Mr. Burke.

Q. When you are testifying as to the presence of coal, you are testifying with reference to the presence of coal on some of this ground that you have just now described?

A. I presume so, yes, sir. I have been all over the ground, all over those townships from one end to the other, because I have been largely interested in oil for the last four or five years, and I have had occasion, even in looking over oil lands over there, to go over the same ground several times, and

292 of course, I did not shut my eyes when I was going over.

Q. You kept them open?

A. I wanted to determine if there was oil there, and I would probably manage to bring my knowledge of coal deposits and oil formations to bear upon it and determine in that way.

Q. You could readily do that, of course?

A. I think so.

Q. It is a matter of comparative ease for you to determine their presence?

A. My knowledge might be limited and my brain power limited, I cannot tell that, but it satisfies me, at any rate.

Q. Apparently so; but such as it is, you are very well satisfied that you can readily determine the presence of oil?

A. Yes. I cannot readily determine it, but I can determine the signs as [the] present themselves to my mind.

Q. Did you find any oil on these lands?

A. No, sir; I never looked for any on them.

Q. I thought that was the purpose?

A. Well, I said I was looking over to find the location of oil, but I didn't find any oil because I was not drilling for any. Oil is generally a long way below the surface, you know, and I might find indications, and still not find any oil.

Q. Indications are not always indicative?

A. I am speaking of what brought me over the land, that is all.

Q. When you go out with Dr. Wolcott, are you his assistant or are you a collector?

A. I dont know; I am a collector under the pay of the United States Government; you can call it what you like.

Q. What is that pay?

293 Mr. Burke: Plaintiff objects to that as immaterial and not proper cross-examination.

A. I receive fifty dollars a month, and all expenses, not to exceed eight dollars a day.

Q. And that furnishes your employment?

A. No, sir; it is more a matter of pleasure; it is my summer vacation. I have other employment more lucrative than that, but when I am out in the mountains—

Q. You engage in that, I will put it that way, for three or four months of the year?

A. Only during the field work, that is all, in the summer time.

Q. Three or four months?

A. Yes, three or four months, sometime two months, sometimes as long as I want to stay out.

Q. I understood you to say that you went out into that country for the purpose of entering some land at one time?

A. Yes, sir.

Q. What section was that?

A. I was after section 24, township 19 north, range 117.

Q. You know, dont you, that that ground is not in controversy in this action at all?

A. I dont know anything about it; I presume not, though, from your statement particularly, but that is what I went up there for, I say; it was for that purpose. I did not say it was to locate this land.

Q. Are you a surveyor as well as a geologist and lawyer?

A. No, sir, I am not.

Q. I thought you made a compass survey up there?

294 A. Well, I did, but that wouldn't constitute me a surveyor.

Q. It wouldn't?

A. No, I dont think so. Do you think it would? I had a pocket compass and I found my corner, and ran a line as near as I could.

Q. How near do you suppose that was?

A. Well, I dont know; I suppose it was pretty accurate.

Q. Did you have any assistance in the matter?

A. I had two men with me, yes, sir.

Q. You ran around the section, as I understand it?

A. No, sir; I ran a straight line right on that township line 24-117; I ran the township line, that is all. I will tell you what brought me up there, if you will let me.

Q. No, I am not interested in that. Did you make any examination of the surface of section 24, aside from your running the line that you have described?

A. Yes, I did; I made an examination of the surface.

Q. You examined it so that you became somewhat familiar with it? A. Yes, sir.

Q. On this section you say you found some coal?

A. Yes, I found evidences of coal.

Q. You found evidences, or coal?

A. I found evidences of coal, what we call coal blossom, as the coal miners call it, and and evidences indicating that there was coal on that section.

Q. Whereabouts on that section?

A. As near as I can tell, it was about the southeast corner of the section.

Q. And that would be at least a mile and a half or two
295 miles south of any land embraced in this action, would it not?

A. I presume so; I dont know exactly.

Q. Did you find any coal to the north of section 24?

A. Yes, sir.

Q. Due north? A. Well, a little northeast.

Q. That was on this main vein that runs along the east slope there, was it? A. Yes.

Q. Now, this blossom that you found in the southeast corner of 24, was that also near the outcrop of this big vein?

A. Yes, it was a part of the outcrop.

Q. Now, Mr. Spence, you never observed up there in this country any other coal except this Big Diamondville vein on the east slope of the valley, did you?

A. On the west side of the valley I found coal, yes, sir.

Q. But I mean in the valley itself?

A. No. I found evidences of coal in a couple of holes where the gophers had thrown out small coal there.

Q. Away from this vein?

A. Away from this vein, right down lower in the valley.

Q. Where?

A. Oh, I couldn't tell you exactly where now; it is considerably down over that section, then there is a little bit of a jump and a little bit of a dry gulley, and the other side of that gulley I found some gopher holes that had coal in them down in there.

Q. What do you mean by a jump?

A. Well, the land was a little flat for a while, then there is a dry gulley, and then the other side of that gulley was higher than what I was on.

296 Q. This is still further south than the southeast corner of 24, is it?

A. It is west, where I speak of.

Q. About a mile west of the southeast corner of 24?

A. Yes, I think so.

Q. And on the further side?

A. On the further side.

Q. Did that coal belong to the series of veins on the west side of the valley, do you think?

A. No, I do not; I think that is another vein of coal. There is the Adaville coal which runs on that side, and I think that

was not it. You see there is a rise again there, and the Adaville vein runs down there, and this may be a branch or fault from that vein; I couldn't tell.

Q. Do you think that the vein on the east side and the one on the west side are the same vein?

A. No, sir, they are not the same vein.

Q. Out in the valley itself, except for this series of veins on the west side and the vein on the east side you never found any coal, did you?

A. No. Oh, I think the valley there is—I couldn't tell now exactly, I couldn't positively tell you; it is a big valley.

Q. It is quite a large, flat valley?

A. Yes, a large, flat valley.

Q. And the topography is such that it lies between rolling hills, or almost mountains?

A. Yes, but I am speaking now of range 117 west, or the east side of range 117.

Q. Does that range run north and south or east and west?

A. That range runs north and south, but I am speak-
297 ing now of from the east edge of 117, west.

Q. Then, you are not including 116 at all?

A. No, sir.

Q. Well, going back to it, Mr. Spence, we have a valley that is how wide there?

A. I couldn't tell; three or four miles wide.

Q. And on each side you have rolling hills or mountains?

A. Yes, sir.

Q. You have a big, large, well defined vein of coal on the east side of that valley that outcrops along the foot hills, the Diamondville vein?

A. Yes; the wagon road runs right over it. The wagon wheels cut out the coal as they go along the ruts.

Q. Then, on the west side you have another series?

A. There is a vein of coal there, yes.

Q. In the intervening space you have a valley with apparently no coal outcrop there?

A. That is, on the surface, no.

Q. On the surface—well, you have never seen it below the surface, have you? A. No.

Q. It never has been exploited below the surface?

A. Not that I know of.

Q. You don't know what is below the surface, do you?

A. No.

Q. And to your knowledge no one else does?

A. I don't know that anyone else does.

Q. You did take some measurements of the dip of this vein?

A. Yes.

Q. I want to ask you in what direction it dips?
298 A. It dips west.

Q. Where you measured it at Cumberland No. 1 it was twenty-two; at Cumberland No. 2 it was eighteen and at Glencoe about twenty-eight degrees? A. Yes.

Q. You said the normal dip was ten degrees. What do you mean by that?

A. Well, the normal dip is the dip of the country.

Q. The whole country in there—

A. Has a normal dip of ten degrees to the west, all the stratifications.

Q. Have you ever examined those veins on the west side?

A. Not carefully. There are no veins really exposed south of the Adaville mine; at the others, there are indications that go through, but they have never been exposed, and never been worked on or developed.

Q. Do you know the character of coal that they find over here on the west side of the valley?

A. Well, I would call it lignite.

Q. It is not of much value commercially.

A. No, I should not judge it was, that is, compared with bituminous coal.

Q. No, but the fact that they have such enormous veins of coal over there and that they are not taking any of it out, would indicate that it was of not much value, wouldn't it?

A. No, I don't think so; I am of a different opinion to a great many; I know something about that.

Q. Do you? A. Yes, sir.

Q. But, at any rate, to dispose of that matter, this
299 coal showing is all north of section 18, is it not?

A. Oh, no; there is lots of coal south of 18, in 16 and 17.

Q. I thought you said that it petered out or squeezed together or broke up as it came south from Adaville?

A. No; I said this, that the coal along the line of the foot hills there, running north and south from the Cumberland, I do not consider that the Cumberland vein is the same vein as the coal at Glencoe?

Q. You don't? A. No, sir.

Q. You don't think the Cumberland and the Glencoe and the Diamondville and the Kemmerer and the Frontier are all on the same vein?

A. No, sir; I think they are on the same coal formation, but not on the same vein. You must understand that I am not a coal expert, but I know this much, that coal is created, or is supposed to be created very largely by pressure, and there are chemical influences. Sometimes a vein of coal may be separated from another vein by an undeterminable thickness,

in some instances more and in some instances less, and one coal may be good, merchantable, commercial coal, and the other may not be worth anything; it may be a poor lignite, owing to the pressure and the possible retaining of carbon.

Q. What has that got to do with anything I asked you?

A. Well, you asked me if I thought the Cumberland and the Diamond and the Kemmerer is the same coal, and I say I don't think it is; I think it is another vein, but it is in the same formation.

Q. Then, in your opinion, this vein is not continuous on strike from Glencoe down to Cumberland?

300 A. Not on strike; I believe pretty much so on dip though.

Q. But not on strike? A. No.

Q. Do you know how the intervening place occurs, where the Cumberland vein predominates going north?

A. No, sir.

Q. Then, I understand, according to your judgment there is no continuous vein followed on the east side of the valley?

A. Well, there is a continuous coal formation. I could not say a continuous vein, because I have not analyzed the different coal, but there is a continuous coal formation along the west side of what they call the Oyster ridge, running all the way along—

Q. Mr. Spence, to go back a moment, this survey of yours you made with a compass, an ordinary compass?

A. Just a pocket compass, yes, sir.

Q. Did you run due north by the compass?

A. No, I didn't run magnetic north I ran it on the variations, I think 17.30; I think that is what it is. I dont know positively that I just located 24, only as I say; I didn't run an accurate line, you know,; I presume I did, but I was satisfied that I ran so that I could tell within a mile or so; that is, I know when I was on that section or that tier of sections.

Q. You would not attempt to verify that survey, so as to state positively that you were on the line of 24?

A. Well, I couldn't do that, no.

Q. Now, we were discussing this coal formation on the west side of the valley? A. Yes.

301 Q. And to dispose of it, in the valley proper, in the intervening portion between the foot hills on the east side and the foot hills on the west side there is no coal that you know of? A. There is no coal cropping out, no.

Q. Now, you gave the dip of this coal vein as varying from eighteen to twenty-eight degrees? A. Yes.

Q. What would be the vertical displacement, or the vertical depth that that would make in a thousand feet horizontally?

A. Well, that is a matter of mathematics, if it continues that pitch or that dip.

Q. What is the divergence of a degree in a hundred feet?

A. Well, I dont know.

Q. So that you dont know and you cant give us any idea as to whether this coal vein, or these veins as you say, on the east side of the valley would underlie any of these sections out in the middle of the valley?

A. No, I couldn't with any degree of accuracy. I could figure it out, of course.

Q. What is your definition of coal land, as you have testified to this land?

A. My definition of coal land is where land can be successfully worked and operated for coal commercially; where it can be made a paying proposition.

Q. Now, you dont mean to testify that any of these sections that are in controversy in this case are lands of that character?

A. I could not determine that, because I am not in the coal business.

302 Q. You couldn't determine it for the simple reason that there is nothing appearing upon the surface that would enable you to determine it?

A. Well, I could determine it in various ways, but possibly you would not let me tell it if I wanted to.

Q. Well, as far as you can determine from the surface, there is nothing there? A. Now, if I were going—

Q. Just answer my question.

A. All right, go ahead.

Q. As far as an examination of the surface of this land is concerned, there is nothing there that would enable you to say that it is coal land within the meaning of your own definition?

A. No, only from the indications, that is all.

Q. These indications are this one coal vein away up off to the east that may possibly descend so that it would get under the surface of these lands?

A. Well, it might fault or do anything; you cant tell.

Q. That is the point. You cant tell and no one else can tell whether that coal would ever get out there under this land or not? A. No, sir, you cant tell.

Q. The only way would be to sink down on the slope and follow it and see whether it was continuous on its dip, and whether it continued under there in commercial quantities?

A. Yes, sir.

Q. That would depend, largely, upon the character of the coal, on the vertical distance from the surface and on a great many other factors, would it not? A. Yes, sir.

303 Q. Now, Mr. Spence, if you were endeavoring to get a section of this land out in the middle of the valley—you are a lawyer and you know the character of proof required upon a coal declaratory statement—could you conscientiously make proof to the United States Government that there was any coal there?

A. No, sir, I could not do that.

Q. You could not obtain title?

A. I could not, unless I went to work and first found the coal; I must first open up the vein before I can file a declaratory statement truthfully.

Q. Now, you say that this soil is impregnated with alkali so that it is valueless? A. Yes.

Q. Except as an abode for horned toads, I believe?

A. Yes, I think that is about all the value it would have.

Q. What is alkali?

A. Well, alkali is an alkaloid, that is all I know about it.

Q. Is alkai an alkaloid? A. What do you ask?

Q. I want to know what is this thing in the soil that destroys it?

A. It is a chemical ingredient there which destroys everything that prevents everything from growing there with the exception of a little schrub sage brush and greasewood and a little worthless sour grass which indigenous to this kind of land, that is all; it is almost barren.

Q. You dont know what the substance is?

A. No, I never chemically analyzed it. It is called alkali in this country. I dont know; I am not a chemist.

304 Q. Do you think the alkali is responsible for the destruction of the vegetation?

A. I think so, very largely.

Q. By osmosis or [oorrosion]?

A. It is destructive to all growth, except that growth which indigenous to that kind of soil, and there is no foreign vegetation that will grow there.

Q. But you are unacquainted with the process of destruction? A. I am.

Q. This soil is what character of soil?

A. I wouldn't call it soil at all. I would call it a detritus, that is all, a derbis which is washed down from the hills, and strongly impregnated with alkali, what is known as alkali. I am using the common terms of the country; I am not going into the chemical formulae at all.

Q. You say positively that this soil is merely the erosion from the surface of the hills, do you?

A. Well, I dont see how it could form any other way, anyway. Do you? How is soil made generally?

Q. Isn't that the usual way in which soil is made?
A. Why, it is the only way that I know of.
Q. That is soil, isn't it?
A. Well, you might call it so.
Q. Then, why do you refuse to designate this stuff, as you term it, soil.
A. Well, it is soil, strictly speaking it is soil; that is all right.
Q. It is good soil, isn't it? A. No, it is not good.
Q. Why isn't it good?
305 A. It has been probably eroded and wholly disintegrated, and all the particles washed down, you know, and it forms a detritus or derbis in the valley, that is all; you can call it what you like.
Q. Isn't that what forms all soil? A. Exactly.
Q. Is all soil, in your opinion, no good?
A. No, I dont say that. If soil is inpregnated with acids or alkaloids or anything that is detrimental to the growth of vegetation, it is not good soil, I should judge.
Q. It is because of its impregnation with deleterious substances? A. Yes.
Q. Do you know that there is any such impregnation?
A. Yes, I do know it, because I have seen it.
Q. You saw it?
A. I saw the alkali there, yes, and tasted it, and drank the water which drains from the valley, and know all about it.
Q. That is the manner in which you arrive at your chemical analysis? A. Yes; I know it is alkali.
Q. Shall we term that the Spence method of analysis?
A. Well, it is my method, yes.
Q. Now, seriously speaking, dont you think that this would be very good soil with the application of water?
A. It is a matter of opinion. I dont think it would. I wouldn't give ten cents for it; I wouldn't give ten cents a section for it, myself.
Q. Is there any other reason for that than the fact that you dont believe the soil is good?
306 A. No, I dont think it is worth a cent.
Q. When you made this examination there was no railroad down in there? A. No railroad then, no.
Q. That was along in 1900?
A. Along in the spring of 1900. The Company had not started then at all.
Q. There were no coal mines there then?
A. No, sir, nothing like that.
Q. No development of coal in that country at all?
A. Nothing but a few prospect holes in there.

Q. Along the outcrop? A. Yes.

Q. This coal region as you now know it, with its output of coal in the vicinity of these lands, has all been developed since that time, has it not? A. Yes, sir.

Redirect Examination

By Mr. Burke:

Q. I will ask you to state more fully in relation to this examination of section 24, as to whether you carried it to that extent to determine whether or not you would file upon it as coal land?

A. I satisfied myself completely that it was valuable land for coal.

Q. How near to the eastern line of that did you find this vein cropping out that you speak of?

A. I think it strikes near the cropping, not far from the cropping, were it crops out on the west side of range 116.

307 Q. Now, showing you township plat marked exhibit No. 275, this is the section 24 to which your testimony referred in that matter of the examination, is it not?

A. That is the section, yes, sir, 1970; that is the section there.

Q. How far from the east line of that section was it that you found this vein?

A. Right along here; it was close to here (indicating.)

Q. Was that a north and south vein? How near did it follow to the line, as you observed it?

A. Of this township?

Q. Yes.

A. Why, it is part of it on that township. I dont know whether it was on 24 or in this section, but it was right along about here, anyway.

Q. Did you file upon it? A. No, sir, I did not.

Q. Why not?

A. I was going to file upon it, and when I came to the Land Office to make my investigation, before I got ready to file, I was going to put some men to work on it—I was told that there was a forest lieu selection filed upon it by the Blackfoot Milling & Mining Company of Montana, and I then at once drew up a protest.

Q. Did you ever file that protest?

A. No, I didn't file it.

Recross Examination

By Mr. Kelley:

Q. And you have been sort of protesting ever since, haven't you?

308 A. Yes. I have got a kind of penchant for that, protesting.

Q. And it has taken the particular direction of a not very friendly feeling to the defendant?

A. Oh, I don't know anything about that. The Diamond Coal & Coke Company, I never had any business with them, for or against them, in my life.

Q. Isn't that one reason why you don't feel friendly to them?

A. No, I don't say that I don't feel friendly. I don't feel friendly to them, because I don't know them. I have had no connection with their affairs. I never had any transactions with them, for or against. I am open to confess that I don't like Tom Snedden, if that is what you mean. Outside of that I never had anything to do with the company, never did a dollar's worth of work for them, and I don't know that I ever did anything against them in my life; I don't know them; I don't know the officers, even; Mr. Snedden is the only one I know.

Q. And you don't like him?

A. I don't like him purely for political reasons, nothing else; that is all. I like him personally firstrate, he is a good fellow and all like that; I have no objection to him at all; but he got after me politically, and I don't like him, that is all. But the Diamond Coal & Coke Company, I have got no interest for or against them, I assure you of that.

By Mr. Burke:

Q. This feeling that you have does not have any influence on your testimony, does it?

A. Not a particle. I am not here as a voluntary witness, I assure you.

(Witness excused.)

309 Mr. Burke: We have prepared a statement here, and the County Clerk is here to verify it, as to the receipt by the County Recorder of the several patents issued to the land in controversy in this case, as to the date of the patent, the date of the record thereof and the page and book and the date of the receipt of the deeds, which are admitted in the pleadings as conveying these lands, as a portion of them by Thomas Snedden to the Diamond Coal & Coke Company, and the date of the record of the deed from Daniel F. Harrison conveying such of the lands as he entered and took up to the Diamond Coal & Coke Company, and indicating that all of these conveyances and instruments were received from Mr. Ausherman for record, and returned to Mr. Ausherman, this indication being made by a letter "A" as placed against each of the several patents, with the exception of the first, No. 908,

which was received from Clara Petersen and delivered to Mr. Ausherman, and as to the deed from Mr. Harrison, which was received from W. G. Hill, and delivered to Mr. Ausherman, all of that being entered in the appropriate place, as indicating the passage. I submit it for the inspection of the counsel for the defendant.

Mr. Evans: We will look it over.

Mr. Kelley: Of course, defendant objects to the competency, materiality and relevancy of the evidence under the general objection, and we object to it on the ground that it unnecessarily encumbers the record. We also object specifically to that portion of the record by which it is proposed to show from whom these instruments were received and to whom they were delivered on the ground that it is immaterial. (Adjourned until Jan. 24.)

310 Friday, January, 24th, 1908, 9:30 A. M. Hearing resumed pursuant to adjournment.

It was then and there stipulated by and between the parties to this action, through their respective counsel, for the purpose of saving time, that plaintiff's exhibit No. 277 correctly states the United States Land Office entry number of the several pieces of land in controversy here, the name of the entryman, the date of the patent, and the date of the record in the office of the County Clerk of Uinta County, with the book and page where recorded, and the same as to the two deeds conveying the said lands to the defendant; that the initial "A" as it appears after the number of the entry and after the book and page of the record in the County Clerk's office, refers to Benjamin Ausherman, as the person from whom the instrument was received, and the one to whom it was delivered by the County Clerk; likewise the same as to the deeds, with the exception of the deed from Mr. Harrison, which was received from one, W. J. Hills, and delivered to Mr. Ausherman, and the instrument given under No. 908, which was received from Clare Petersen, but delivered to Mr. Ausherman.

This stipulation is made subject to the objection of the defendant to each and all of said facts and matters, for the reason that they are immaterial and irrelevant under the pleadings in this case.

311 William Newbrough, called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. What is your name? A. William Newbrough.

Q. Where do you live? A. Evanston, Wyoming.
Q. How long have you lived here? A. Since 1891.
Q. What is your business? A. Civil and Mining engineer.
Q. How long have you been engaged in that business?
A. Since 1884.
Q. Exclusively, as an occupation?
A. Yes, practically, except for two years during which I was Assistant Superintendent of the Pemberthy Injector Company of Detroit, which was in the mechanical line.
Q. You were brought here by subpoena? A. Yes, sir.
Q. And against your will and wish, I understand; you are now opposed to giving testimony?
A. I am an unwilling witness in this respect, that being in business for myself, I do not care, without their permission, to disclose anything, any surveys or examinations that I make for anybody, without their permission.

Mr. Kelley: As far as the Diamond Coal & Coke Com-
312 pany is concerned, we now give you permission.

The Witness: Then, I am a willing witness.

By Mr. Burke:
Q. I will ask you if you made a survey locating the sections and the corners and lines in the west half of township 20 north, range 116, in the year, 1898? A. Yes, sir.
Q. And for whom did you do it?
A. I made a survey there for Mr. Thomas Snedden of Diamondville.
Q. Did he accompany you while making that survey?
A. Yes, sir, he went along.
Q. Have you your minutes of that survey?
A. Yes sir.
Q. Will you produce them and let them be read and taken into the record, if you know them to be correct?
A. Yes, sir. They were taken at the time, and as far as I remember they are correct.
Q. No one has had access to those minutes since that to change and alter them; they have been in your possession ever since?
A. Yes, except possibly referring to this book by some of my assistants for back surveys. It is one of my regular office books.
Q. Are they in your handwriting? A. Yes, sir.
Q. And made when?
A. The notes here were made on March 31st, April 1st
313 and April 2nd, 1898.
Q. Now, will you please read them and let them be taken?

Mr. Kelley: Objected to on behalf of defendant as incompetent, immaterial and irrelevant, unless the notes refer specifically to some part of the premises in controversy.

Mr. Burke: They do, Mr. Kelley:

Mr. Kelley: Then I will make the objection as far as they apply to any premises not in controversy.

Q. Will you read your minutes, giving the notes, the entire minutes, as you have them.

A. (Reading.) "March 31st, 1898, notes of survey for Tom Snedden at Forest Spur, near the southeast corner T. 21 N., R. 116 W. There is pile of rocks near houses, from which S. W. corner Sec. 36 is 2549 feet east. This pile of rocks is 30 feet S. and 400 feet W. of houses. The course of the line between the S. W. corner and the S. E. corner of section 36 is probably S. 89 Deg. 20 min. east, or the variation of the line is about 16 deg. 20 min. east. For these notes, see book No. 2, pages 76 and 77." I would like to say that this part of the notes was evidently made in Evanston, before I went up, in order to get what data I had in case it should be required.

Mr. Kelley: Defendant objects to this upon the ground that it is incompetent, for the reason that these are not original notes made by the witness, but merely purport to be a
314 copy of some data made by him, and are not the notes of any survey; we move to strike it out of the record on that account.

Q. I will now ask you the question whether those were taken from a survey that you had previously made, locating that point, or not? A. Yes, sir.

Q. Now, proceed.

Mr. Kelley: Defendant objects to all this as immaterial.

Mr. Burke: Your objection covers it all.

Q. Go ahead.

A. (Reading.) "April 1st, came to Diamondville. April 2nd, variation 17-20, began at corner to sections 4 and 5, T. 20 N., R. 116 W., and ran S. 1040 feet; struck quarter corner to sections 4 and 5 in place; 3676 feet to corner to 4, 5, 8 and 9, in place near cow bones; thence S. 2631 feet to quarter corner to 8 and 9 in flat; 5271 feet to corner to 8, 9, 16 and 17. From this corner an opening bears N. 73 W. 60 feet. Here I saw an opening three feet deep. From corner, opening No. 2 bears N. 78 W. 100 feet. Here I saw an opening about 16 feet deep, 2 feet wide and 6 feet long; it is a shaft. No

evidence of stone or timber on this line; whole section lies in a flat valley; east line of section runs along foot hills. Thence S. 2640 feet to quarter corner to 16 and 17 on side hill; 5275 to corner to 16, 17, 20 and 21, on side hill, just below solid rock; thence W. 1250. Coal opening is S. 85 feet, and shows coal in sight, 2 feet thick, exposed; quality looks good. It is a shallow cut in a small ravine. Coal croppings run
315 S. W. 2600 to quarter corner to 17 and 20, is N., 20 feet; thence from corner S. 3960; set a stone mound; 5280 to quarter corner to 20 and 29 is 30 feet W. Thence W. 2640 to corner to sections 19, 20, 29 and 30; thence N. 2622 to quarter corner to 19 and 20; 5280 to corner to 17, 18, 19 and 20; thence N. 2640 to quarter corner to 17 and 18; 5270 to corner to 7, 8, 17 and 18." That is all.

Q. Now, I notice that you make use of figures there; what do they refer to, feet? A. Feet.

Cross-Examination

By Mr. Kelley:

Q. Now, Mr. Newbrough, when did you make this survey, please?

A. The survey in the field was actually run on April 2nd, 1898, according to the notes.

Q. Do you know what was the occasion of your making that survey?

A. No, sir; I merely know from this that Mr. Snedden sent for me and I went up and found these corners.

Q. Now, refreshing your recollection, don't you know that, immediately prior to this time, Mr. Snedden had made a coal filing on part of this land, on section 20, the west half of the west half of section 20?

A. No, sir, I don't; I don't remember; I don't suppose I ever knew it.

G. And that in this coal declaratory statement an error was made, by which Mr. Snedden included in it an entirely wrong subdivision of land, which was afterwards relinquished on that account? Do you recollect anything about those facts?

316 A. No, sir, and I am inclined to think that Mr. Snedden would not tell me, because I was just sent for as a surveyor, and I am not intimately acquainted with his doings, and he probably would not. I don't know anything about it.

Q. Do you know whether or not Snedden had any survey when he sent for you, prior to that time, of section 20 or the west half of section 20? A. No, sir, I do not.

Q. Now, Mr. Newbrough, you say you are an engineer?

A. Yes, sir.

Q. And you have been located here for how long?

A. Since 1891.

Q. During that time have you had occasion to become reasonably familiar with the ground and topography, generally, in the vicinity of where you made this survey?

A. This is the only survey that I made in that immediate vicinity, but I have driven over that part of the country quite often.

Q. Now, you testified that during the course of this survey you encountered coal, I think, in one place?

A. Yes, sir.

Q. Will you kindly tell me where that was?

A. That would be very close to the northwest corner of the northeast quarter of the northeast quarter of section 20.

Q. And what was the character of the coal that you found at that place, Mr. Newbrough?

A. All I know is that the notes say the quality looked good, and I saw about two feet exposed.

Q. That was in a ravine or gully, I understood you to say?

A. (Reading.) "This is in a shallow cut in a small ravine."

317 Q. Now, then, did you see coal at any other place exposed during the course of this survey?

A. I don't remember. The notes don't mention any. Probably if I had, I would have mentioned it, but of course, I cannot be sure of that point.

Q. Now, refreshing your recollection, by your usual habit and practice in making surveys of this character, you think it probable, do you not, that if you had encountered coal at any other place you would have so noted it?

A. The chances are that I would.

Q. You mention having observed a couple of cuts or holes at another place in your survey, I think along about the southwest corner of section 9?

A. Near the corner to 8, 9, 16 and 17.

Q. There were two holes there, were there? A. Yes, sir.

Q. You didn't find any coal in those holes?

A. I don't mention any.

Q. One of them, I believe, was sixteen feet deep?

A. Yes, sir.

Q. After you left the corner near which you found coal, you went west? A. Yes, sir.

Q. Down to the northwest corner of the northeast quarter of the northeast quarter of 20, and that is where you ran?

A. You will have to state that again.

Q. Will you step over here, and I will show you on the map. Here is the corner I refer to. We are referring to defendant's exhibit No. 1. Now, then, referring to your notes, from the corner which you found the coal you ran west?

318 A. Yes, sir.

Q. To the northwest corner of the northeast quarter of the northeast quarter of 20?

A. Yes. I have that the quarter corner to 17 and 20. I did.

Q. Then, you ran south from that corner to the quarter corner between 20 and 29? A. Yes, sir.

Q. Then, from that quarter corner you ran west to the corner of 20, 19, 29 and 30? A. Yes, sir.

Q. And from there north to the corner between 17, 18, 19 and 20? A. Yes, sir.

Q. Now, then, as far as you ran upon any land or examined any land in section 20, after you left this section corner where you found the coal, did you at any other place in section 20 see or observe any coal?

A. I haven't any notes of it, so I don't think I did.

Q. Do you know of any coal vein or outcrop of any kind on section 20, outside of away up near the corner that you have referred to?

A. According to the number of section 20, I do not, but it strikes me that somewhere in the vicinity of the corner to 17, 18, 19 and 20 are the mines of the Glencoe at the present time. I did not know of any at the time, but I do now.

Q. No, the Glencoe is not there. You are not sure about that location, are you?

A. If Glencoe is not at that point, I am not.

Q. Glencoe is where No. 4 mine of the Diamond Coal
319 & Coke Company is located?

A. I know that. If I am mistaken as to the location of the Glencoe, then I don't know of any more coal.

Q. Now, then, what character of land is the surface land of section 20, Mr. Newbrough?

Mr. Burke: Plaintiff objects to that as not proper examination. If you wish to make the witness your own, you may do so.

A. All that land is in a rather flat valley.

Q. And is it what you would call grazing land?

Mr. Burke: Plaintiff objects, not proper cross-examination.

A. Yes, sir.

Q. It supports some native vegetation and grasses?

Mr. Burke: Plaintiff objects, not proper cross-examination.

A. Just like the general grazing land right around Evanston.

Q. Are you familiar with the coal deposits up there?

A. At Glencoe, no.

Q. You don't know them? A. No.

Q. Do you know those coal veins in that country?

A. I know the general line of the Kemmerer-Diamondville-Cumberland vein, and I know the general line of the Adaville vein.

Q. Exactly. I just want to ask you if you know of any other coal veins in that country besides the Diamondville-kemmerer vein, as you might call it, on the east side of the
320 valley and the Adaville veins on the west side of the valley?

Mr. Burke: Plaintiff objects, not proper cross-examination.

A. No sir.

Q. And the intervening country that lies in the valley, then, between these two veins, you would designate as ordinary grazing land, would you not?

Mr. Burke: Same objection, not proper cross-examination.

A. Yes, sir.

Q. Now, this hole that you referred to as exhibiting coal, was on this vein, was it not, the Cumberland-Kemmerer vein on the east side of the valley? A. Yes, sir.

Q. The other holes were on the same outcrop, were they not; the other two holes that you have testified to?

A. On the general direction of the outcrop. I would not say they were on the outcrop, because I don't mention that I found coal in them.

Q. Now, this outcrop is covered by a wash, is it not?

A. In very plenty places, yes, sir.

Q. So that you cannot tell, without actually sinking down upon it, just exactly where it is, can you?

A. Only in spots along the whole outcrop for twenty miles,

Q. And of course, there is nothing to the casual observer that would indicate the presence or absence of coal, unless you went in and prospected for it?

A. No, sir, to the casual observer, no; that is right.

321 Q. Do you know, as a matter of fact, whether this land in the valley in the immediate vicinity of the ground with reference to which you have been testifying, is used for pasturage purposes?

Mr. Burke: Plaintiff objects, not proper cross-examination and immaterial.

A. Yes, sir, it is used that way.

Re-direct Examination

By Mr. Burke:

Q. That is to say, it is open as public range?

A. Yes sir.

Q. One other question. Mr. Snedden was superintendent of the Diamond Coal & Coke Company at the time you made this survey, was he not?

A. I don't think he was. I think that the time I made that survey was about the time it was changing hands, and I think Mr. Snedden had either resigned or been discharged, and then was subsequently appointed. I think that was the time; that is my best recollection. There was a short time there that he was out of the employ of the Diamondville Company, during the time Walker Bros. were letting it go and Marcus Daly was taking it up, and I think that was the time.

Q. But he had been superintendent of those mines there, and was, very shortly after that time again, if not at that time, under a different ownership?

A. Yes, I think that is right.

322 Recross Examination

By Mr. Kelley:

Q. Now, as a matter of fact, Mr. Snedden, you think, was not connected with the Diamond Coal & Coke Company at the particular time when you made this survey; it was during the intermin after the transfer of the property?

A. I am pretty sure that is correct.

Q. You testified that Mr. Snedden had been superintendent prior to that time. Isn't it a fact that Henry Burrell was superintendent prior to that time?

A. That may be right. I dont know, prior to that time, what Mr. Snedden's exact title was; it is merely the common report that he was there, first as pit boss, and Mr. Forrester was superintendent, and then at some later time he succeeded Mr. Forrester, and as to the details I have never been enlightened, except as I say, by common rumor, and I may be off. But he was one of the leading men, such as a superintendent would be.

Q. As a matter of fact, Mr. Newbrough, you really dont know anything about what Mr. Snedden's position was at that time, whether he had any connection at all with the the Diamond Coal & Coke Company or whether he had any authority to act for it in any manner, do you?

A. No, sir, I do not.

Mr. Kelley: Defendant moves to strike out all the evidence which the witness has given with reference to this survey, on the ground that it is incompetent, irrelevant and immaterial, in addition to the reasons stated in the general objection made at the beginning of the evidence; for the
323 additional reason it is not shown that this survey was made with the consent or authority or on behalf of the

Diamond Coal & coke Company, or was connected in any way with the operations or management of that company.

Q. Mr. Newbrough, at the time you made this survey, about 1898, or along during that time, was this country developed very much as far as coal was concerned were there many openings along this vein?

A. No, sir. I can explain that. About that time—

Mr. Burke: To this plaintiff objects on the ground that it is not proper cross-examination.

Mr. Kelley: I rather think your objection is good, Mr. Burke.

Mr. Burke: I dont object to you making the witness your own.

Mr. Kelley: We will do that if you wish any further testimony.

Q. You testified in the beginning that you were an unwilling witness? A. Yes, sir.

Q. That was purely from professional reasons, that you did not wish to testify to any matters or information that you had obtained while engaged in the service of a client, was it not?

A. Yes, sir; that is the only reason.

Q. You are not an unwilling witness in the sense that you have any enmity against the Government that would affect your evidence in any way?

324 A. Not at all. It is just as I said, that when I do work for a client, I regard that work as his until he gives me permission to disclose it, that is all.

(Witness excused.)

325 James Lees, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name? A. James Lees.

Q. Where do you live, Mr. Lees? A. Kemmerer.

Q. How long have you lived in Uinta County?

A. About twenty-three years.

Q. How long in Kemmerer and that vicinity?

A. Pretty close to twenty, I guess.

Q. What is your business?

A. Well, mining or prospecting.

Q. You may state as to whether or not you made a cash coal entry in township 19 north, 116? A. Yes, sir.

Q. When did you make that entry?

Mr. Kelley: Defendant objects to that on the ground that it is incompetent, irrelevant and immaterial.

A. I think it was about—I dont just remember the date, but it was about a year from the time the filing was made.

Q. What year was that?

A. 1898, I believe, or 1899. I suppose the record will show what year it was.

Q. And what section was that made on?

326 A. Section 8.

Q. Township and range? A. 19-116.

Q. Did you prospect that entry before making it?

A. Yes, sir.

Q. And what did you find as to there being coal or not?

A. I found coal.

Q. To what extent?

Mr. Kelley: Defendant objects to all this on the ground that it is incompetent, irrelevant and immaterial, for the reason that it does not embrace any of the ground in controversy.

A. About eight feet.

Q. Was that a cash coal entry that you made?

A. Yes sir.

Q. What did you pay for it?

A. Thirty-two hundred dollars, I believe.

Q. To whom did you convey it, if at all?

Mr. Evans: Objected to on the ground that it is immaterial and irrelevant for the reason that it does not embrace any of the ground in controversy, also incompetent because it is not the best evidence.

A. It was supposed to be conveyed to Mr. Burrell.

Q. To whom have you ascertained, by examination of the record that you did convey it to, if you know?

Mr. Kelley: Objected to as incompetent. The record is
327 certainly the best evidence.

A. He was the gentleman I conveyed the land to.

Q. Who was Mr. Burrell; what was his business?

A. I supposed he was agent, probably, for the Diamondville Coal & Coke Company; I don't know.

Mr. Kelley: Defendant objects to this witness answering as to suppositions and I think the Master should instruct the witness not to answer to any fact of which he has not personal knowledge.

The Master: Don't testify to what you suppose.

Mr. Kelley: I move to strike the answer of the witness out.

The Witness: That is the gentleman I had the dealings with.

Q. Who was he; what did he do; what was his business?
A. I guess he was manager or something for the Diamondville people, I suppose.

Mr. Kelley: Defendant moves to strike out the answer of the witness on the ground that it is manifestly incompetent, for the reason that he does not assume to have any knowledge of the fact to which he testifies; it is merely a supposition.

Q. Now, what was he, within your knowledge?
A. He was superintendent of the Diamondville Company, I suppose.

328 Mr. Kelley: Defendant moves to strike out the answer of the witness upon the grounds stated in the previous motion.

(Witness excused.)

329 Donald McAllister, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:
Q. State your name. A. Donald McAllister.
Q. What official position do you hold in the county?
A. County Clerk and ex officio Register of Deeds.
Q. As such, you have the custody of the records of the office of the County Clerk of the county of Uinta? A. Yes, sir.
Q. You may state as to whether township 19 north, range 116 west, is within the county of Uinta.
A. Yes, sir, it is.
Q. What record have you there?
A. The [Bastract] record of that Township and Range.

Mr. Burke: Will you object to the Abstract Record?

Mr. Kelley: Certainly not; you may use the Abstract Record.

Mr. Evans: Will you admit whatever the record shows.

Q. What record have you here?
A. The Abstract Record of Townships 19 and 20 for the different ranges in the county.

Q. Now, turn to the record there of a conveyance made by one James Lees, on page 84, you may read the record there as it pertains to that conveyance.

330 Mr. Kelley: Defendant objects to this upon the ground that it is incompetent, irrelevant and immaterial for any purpose in this case, particularly for the reason that the conveyance concerning which the witness is asked does not apply to or does not convey any of the premises in controversy in this suit; further, for the reason that it in no wise tends to establish the character of the land. But I make no objection to the [Bastract] is used instead of the original record.

A. Conveyance of James Lees and Mary Lees.

Q. Please read the headline explanatory, then that portion of the line under each heading, right straight through.

Mr. Evans: You may say that it shows a conveyance from so and so to so and so.

The Witness: (Reading.) "Grantor, James Lees; grantor's wife or husband, Mary Lees; Grantee, Diamond Coal & Coke Company; instrument, warranty deed; consideration, $3400; date of instrument, month, day and year, August, 26th, 1899; when filed for record, November 23rd, 1899; record, book, page "I", 523; description, southwest quarter, all, all, all; number of acres, 160.2; abstract of certificate of acknowledgment, date, month, year, Aug. 26th, 1899; name of officer taking acknowledgment, Fred A. Voigt; title of officer, notary public; where acknowledged, county, state, Uinta, Wyoming; description, metes and bounds and remarks, conveys southwest quarter of section 8, township 19 north, range 116 west."

(Excused.)

331 I. F. Lamoreaux, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. What is your name? A. I. F. Lamoreaux.

Q. Where do you live?

A. My present residence is Salt Lake City.

Q. What connection have you with the Government of the United States?

A. I am a Special Agent for the Department of Justice.

Q. How long have you held that position?

A. About two years.

Q. Are you acquainted with Thomas Snedden?

A. I have met the gentleman, yes, sir.

Q. Have you at any time had any conversation with him in relation to the entries of the several pieces of land, as entered by him, that are involved in that controversy?

A. Yes, sir.

Q. Where was that conversation?

A. That was at Diamondville, Sweetwater County.

Mr. Evans: Defendant objects to this testimony as incompetent, immaterial and irrelevant, as not in any way binding the defendant in this case or affecting the issues.

Q. When?

A. It was in May of last year, 1907, about the middle
332 of the month.

Q. Was there anything said by him in that conversation as to who furnished the scrip with which to make those entries of the several pieces that were entered by him, which are in controversy in this case?

Mr. Kelley: Defendant makes the same objection, and for the additional reason that it is immaterial, for the reason generally that Mr. Snedden's authority to make any statement or admission binding upon the defendant company has not been shown, and that he has no such authority. The statement is merely hearsay, and does not affect any of the issues in the case, and it is immaterial as to who furnished this scrip.

A. Yes, sir; he stated that the company furnished it. I don't know whether he said bought or furnished the scrip, but the company furnished the scrip.

Q. What company did he refer to?

Mr. Kelley: Defendant makes the same objection, that it is immaterial and irrelevant.

A. The Diamondville Coal & Coke Company.

Q. Did he say what was paid for it?

A. The price was from six to thirteen dollars, as I remember the conversation.

Q. As stated by him? A. Yes, sir.

Q. What relation, if you know, did he sustain to the Diamond Coal & Coke Company at the time of this conversa-
333 tion? A. He was superintendent of that company.

Cross-Examination

By Mr. Kelley:

Q. How do you know he was superintendent of that company?

A. Well, I went to see him in regard to matters pertaining to the company, and he stated that he was superintendent.

Q. Have you any knowledge as to what the functions or the authority of Mr. Snedden were? A. Not at all.

Q. You don't know what his relationship to the company is, further than the mere fact that he stated to you that he was superintendent? A. That is all, sir.

Q. You don't know whether, under his employment, he has any authority to make any declarations which are binding on the corporation, or not, do you?

A. I know nothing about that at all.

Q. Where was this conversation?

A. At his office in the Daly Hotel at Diamondville.

Mr. Evans: Defendant moves to strike out the testimony of the witness as to Mr. Snedden being the superintendent of the company for the reason that the cross-examination develops that the witness had no knowledge upon this subject, but is basing his testimony on the claimed statement of Mr. Snedden, himself, and that agency cannot be proven in this way, by the declaration of the alleged agent.

334 Q. Mr. Lamoreaux, did Mr. Snedden's statement to you that he was superintendent refer to the time at which he was speaking, or to any previous time?

A. At that time.

Q. He made no statement as to what his past connection with the company had been?

A. I don't remember that he went into that at all.

Mr. Kelley: Defendant renews its motion to strike out the testimony of the witness as to Mr. Snedden being superintendent of the company, upon the grounds stated before.

(Witness excused.)

335 Benjamin Ausherman, being called as a witness for complainant, after being duly sworn, on oath, testified as follows:

Direct Examination

By Mr. Burke:

Q. Mr. Ausherman, who is W. J. Hills?

A. He is an attorney who for many years resided in this state, and resided at Laramie for a number of years and also at Evanston.

Q. When residing at Evanston he was your partner, was he not? A. A portion of the time.

Q. What years, do you remember?

A. I don't recall exactly. I think W. J. Hills was in partnership with me in 1898 and 1899; a portion of those years, at any rate.

Q. And during that time you were the attorney for the Diamond Coal & Coke Company?

A. During our partnership we were attorneys for the Diamond Coal & Coke Company, except as to the land office business. The land office business Mr. Hills handled during the time in which I occupied the office of Receiver; that was in Major Foote's absence, which he was in the Phillippines.

Q. Ever since that time you have been the attorney for the Company?

A. I have been employed as attorney at different times for the Coal Company, yes, sir.

Q. Well, you say different times. I mean ever since you came out of the Land Office?

A. Ever since I came out of the Land Office I have been
336 their local attorney here.

Q. Your residence has been here at Evanston?

A. Yes, sir.

Cross-Examination

By Mr. Kelley:

Q. During the time that you were connected with the Land Office of the United States Government, did you have anything to do as attorney for the Defendant Company, with any land matter in which it was interested, in any way before the Department of the Interior or before your local office?

A. No. That was a reservation I made with the Company. I informed them I could not be, and that I was taking this office, and Mr. Hills understood that any business of that kind that came into our office, was his business and that he should take care of it, but that as to other matters for the Company, the fire cases and injury cases or anything of that kind, that I was still in that character of service.

Re-direct Examination

By Mr. Burke:

Q. You were still receiving the annual salary or monthly salary during that period, as before and since?

A. Oh, I received pay for my services; I don't recall just in what way.

Q. It was not pay for the particular transactions, but it was a monthly salary, was it not?

A. No. In 1898, a portion of that time, for the services that I performed for the Company there were direct charges made. The firm, as a partnership, were retained, and
337 was true with every entry that was made, that a special charge was made for that particular entry, whatever the work may have been, whether it was for land business or any other business.

Q. Then, you were not on an anual salary or monthly salary?
A. Not during the entire time, no. I don't recall when we did go on a salary; it was during our partnership that we went on for an annual salary, but as to what time it was, I don't know.

By Mr. Kelley:
Q. Did you receive any compensation or make any charge for any matter that was transacted before the Land Department? A. Not as long as I was Receiver.

(Witness excused.)

338 Frank M. Foote, recalled as a witness for complainant:

Direct Examination

By Mr. Burke:
Q. Major Foote, you have already been on the stand and testified in this case? A. Yes, sir.
Q. When you left the stand you were requested to prepare a duplicate statement, giving the numbers and dates of the cash coal entries, cash entries and coal declaratory statements, as shown by the records of your office, as made in townships 18, 19, 20 and 21, north, range 116 west of the 6th principal meridian, and in townships 18, 19 and 20 north, range 117 west of the 6th principal meridian. Have you prepared such?
A. I have, sir.
Q. Are these six sheets which you now hand me such data?
A. Yes, sir.
Q. And they are correct as taken from your record, are they?
A. As near as they can be without the use of a microscope.

Mr. Burke: Plaintiff offers in evidence the six sheets identified by the witness, to be attached to the record and marked with the exhibit number which has been reserved for them, No. 278.

Mr. Evans: Defendant objects to each of these sheets and to each entry thereon, for the reason each and all of them are immaterial and irrelevant, and also incompetent; and for the further reason that they relate to lands not in con-
339 troversy in this action, and in no wise prove or tend to prove the character of the land in controversy at the time of the entries, or to prove or disprove any of the issues in the cause.

Six sheets identified by the witness marked plaintiff's exhibits, Nos. 278.

Cross-examination

By Mr. Evans:

Q. Mr. Foote, were any of these entries or statements—were the applications based upon these statements afterwards relinquished or abandoned?

A. Oh, I presume that ninety-five out of a hundred of them have expired by limitation, or been relinquished.

Q. You mean the coal declaratory statements?

A. The coal declaratory statements, yes, and in one instance four cash coal entries were canceled by the Department, and the money refunded.

Q. We will take them up separately, then. Taking, first your coal declaratory statements, then, the list that you give upon these six sheets does not show declaratory statements that were actually ripened into title from the Government?

A. Oh, no.

Q. And you would say that probably ninety-five out of a hundred of them were abandoned?

A. I do not think it would show any coal declaratory statements that passed to cash entry and patents afterwards, because they are generally erased.

Q. In other words, then, you think that all of them coal declaratory statements as shown upon this list were afterwards abandoned or relinquished?

340 A. Except these higher numbers, say along about 1200; from 1200 up. All the others have expired by limitation or been canceled by relinquishment.

Q. How can we tell from your list which of the coal declaratory statements passed to title, and which were abandoned or relinquished?

A. Well, there are not any there that passed to title, because I haven't shown any coal declaratory statements there that has passed to patent, that cash entry has been made on.

Q. Then, they have all been abandoned or relinquished, or are at this time still pending as coal declaratory statements?

A. Yes, sir.

Q. Now, the cash coal entries that you show upon these lists, you state that all of those have been passed to title?

A. Oh, yes.

Q. I though you spoke of four, at least—

A. Well, they passed to title and were patented, and afterwards were canceled by the Department on the showing made by the state. It was in section 36, in the township cornering on the Cumberland.

Q. That was because they were state lands?

A. Yes, sir, but up to that time we had been selling them as coal lands. In section 36-19-117, that is right.

Q. Now, with those exceptions, Mr. Foote, do you state that all of the cash coal entries shown upon your list have been ripened or passed to title by the Government under the coal entry? A. Yes, sir, under the coal entry.

(Witness excused.)

341 T. V. Davis, recalled for further

Cross-Examination

By Mr. Kelley:

Q. Mr. Davis, you have testified in this case heretofore?

A. Yes, sir.

Q. Yesterday morning I asked you to take your Tract Book of townships 18, 19, 20 and 21, in range 116, and townships 18, 19 and 20 in range 117, both west, and to compare the agricultural entries that you had testified to from your plat book, with your Tract Book, and ascertain whether or not there were any additional entries shown in the Tract Book. Have you done so?

A. Well, yes, I have looked that up.

Q. What did you find to be the fact?

A. Well, there are more than I gave yesterday; there are more agricultural entries than I gave yesterday.

Q. Have you had time to prepare a list showing the exact number?

A. No, sir; we have been too busy. We are working on it right now, and it is not completed.

Q. What have you to say as to whether or not there are a considerable more in these townships?

A. Yes, sir, I believe there are a considerable number more agricultural entries in those townships.

Q. Have you any idea as to the number more?

A. No, but I should rather think there is more than twenty.

342 Redirect Examination

By Mr. Burke:

Q. That is, more than what you mentioned in your testimony yesterday? A. I have an idea, yes, sir.

Q. When testifying from the plats? A. Yes, sir.

Q. I wish you would prepare a list of those agricultural entries, giving the description and the entry number and the date when made, and furnish it to the reporter to be included in the record. A. Yes, sir.

It was then and there stipulated and agreed between the parties hereto, that when the above described list is furnished by Mr. Davis, it may be incorporated in the record as an exhibit, to be marked plaintiff's exhibit No. 279.

(Witness excused.)

Mr. Burke: I wish to notify opposing counsel that I shall apply on the 3rd day of February, if I can get a chance to be heard on that day, and if not, on the 8th of February, for an extension of time within which to take testimony on behalf of the plaintiff in this case, for the reason that one of the material witnesses has left the continent, having left prior to this case coming to issue and without my having any knowledge of it, and who is expected back about the 15th of March. I cannot say now as to whether there will be any more testimony, aside from that witness, or not, for a certainty. If you will
343 agree that, if an extension is granted, the balance of the testimony may be taken at the time of this witness's testimony, I will arrange to take it at that time, and will not call you or notify you for any other date; but if you cannot agree to that, of course, I shall have to take the balance of my testimony, probably, between now and the 15th of February, and will have to notify you of the date and place at a later date than today.

Mr. Kelley: In regard to the first matter, will you notify Mr. Ausherman whether you are going to apply for a continuance on the 3rd or the 8th, in sufficient time so that we won't have to make a trip to Cheyenne unnecessarily?

Mr. Burke: If he is not notified, it will be understood that it will be on the 3rd. I will let you know in abundance of time, so you won't have to make an unnecessary trip.

Mr. Kelley: In regard to the second matter, counsel for the defendant have discussed it somewhat, and we feel that you should submit all the testimony you have, except, of course, the absent witness, within the time allowed by the Court; in other words, you should complete your case before the expiration of the order now granted. In regard to the continuance, we cannot consent to a continuance of the case.

Mr. Evans: And we will be ready, on notification, to come and take this testimony at any time.

344 Mr. Burke: Well, you are agreeing to nothing, and I will have to go to the Court, and I think, for my own convenience, I will ask the Court to permit me to take the balance of my testimony at that time.

Whereupon further hearing of testimony in this cause was adjourned subject to call.

345 Tuesday, March 24th, 1908, 3 P. M.

Hearing resumed pursuant to adjournment.

Arthur C. Veatch, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. Arthur C. Veatch.

Q. Where do you reside? A. Washington City.

Q. What is your business?

A. Geologist, with the Geological Survey.

Q. Are you an engineer by profession or a surveyor?

A. Yes, I do survey work in connection with geological work.

Q. What have you had to do with the making of this map hanging the wall, which for identification has been given the number 280?

A. I put on the outcrop of the coal, the location of the Kemmerer-Cumberland seam, which is that red line.

Q. Running from top to bottom of the map?

A. Yes, and the location of the railroad line there and the position of Ham's Fork Creek there.

Q. How is the railroad designated and how is Ham's Fork designated?

A. The railroad is a black line with short cross lines at intervals.

246 Q. Running merely from top to bottom of the map?

A. Yes, that is the Cumberland branch. The other branch shows off to the left there in the north of township 20 north. The creek is a double line that is shown here, in the upper right hand corner of the map.

Q. Marked Ham's Fork? A. Yes.

Q. What is the fact as to whether those are correctly placed upon that map as to the Government subdivision as indicated on the map?

A. Yes, the locations are based on my surveys there in the summer of 1905.

Q. What do you say as to whether or not they are on there correctly or not?

A. They are correctly on there.

Mr. Burke: I think that is all I want with Mr. Veatch at this time. I want to recall him later on.

Cross-Examination

By Mr. Kelley:

Q. Did you make the survey yourself, Mr. Veatch?

A. Yes, I was in charge of the party.

Q. You did not make the surveys?
A. Part of them I did.
Q. Which part?
A. Do you want a specific statement of every line I ran on that map?
Q. No, but I want to know did you run transit on the lines yourself? A. Yes.
347 Q. To any considerable extent?
A. Yes, sufficient to determine the absolute location of those lines so as to enable me to state that that matter was correct.
Q. Now, as I understand you, you are simply testifying to the relative location of the outcrop of the coal vein, the position of Ham's Fork and the Cumberland branch of the railroad?
A. No, the location of the Short Line on there and also the Cumberland branch.
Q. You tried these different survey lines to the section corners, did you? A. Yes.
Q. In all instances?
A. In enough instances to determine the location of the railroad.
Q. Where are your notes? A. In Washington.
Q. Can you get them?
A. I have a map with me which is based on my notes; it was made from my own surveys and under my own direction, and verified by me from those original notes, and it was from that map that I transferred this location. I also had, in addition to my own work, the blue prints furnished by the railroad company, based on their work.
Q. As a matter of fact, didn't you take your information largely from those blue prints?
A. Why, I should say. The blue prints of the railroad
348 represent an entirely accurate transit survey.
Q. I didn't catch that.
A. The blue prints of the railroad represent a transit survey in there.
Q. Made by whom?
A. By the railroad engineers, and procured—it was furnished to me by the railroad company.
Q. I want you to indicate on the map, if you will, please, the parts of this crop that you surveyed yourself.
A. The crop part of it I surveyed entirely. It is the railroad we were talking about.
Q. Between what points? A. That whole location.
Q. That is to say, beginning up at the top of the map there in section 1? A. Yes.

Q. 21 north? A. Yes.

Q. And running down as indicated by the red line down section 6 in 19? A. Yes.

Q. You surveyed that entirely? A. Yes.

Q. I understand you ran the instrument over this crop?

A. Yes.

Redirect Examination

By Mr. Burke:

Q. You mean 1 in 21, dont you, the top of the map?

A. Yes, the top of the map.

349 Mr. Kelley: Yes, 21, I guess that is right.

Q. To section 6 in township 18? A. Yes.

Recross Examination

By Mr. Kelley:

Q. This line is unbroken, representing the outline?

A. Yes.

Q. Do I understand from that that the outcrop is discernible at all places along the line as indicated along the map?

A. That is the horizon of the outcrop. The coal has possibly weathered down, and does not show at all points along the outcrop, but it can be traced there by the general optical observation.

Q. I understand that you do not mean by the red line that there is a solid line of outcrop wherever indicated by the red line on the map?

A. No. That is the position of the coal field.

Mr. Kelley: Of course, Mr. Veatch is excused with the understanding that he is coming back.

Mr. Burke: Certainly.

(Witness excused.)

350 John C. Wallis, a witness for complainant, after being duly sworn in its behalf, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. John C. Wallis.

Q. Where do you reside? A. Chicago.

Q. What have you had to do with the making of this map?

A. I directed its making.

Q. From what was it made?

A. From the testimony taken in this case on behalf of the complainant.

Q. And what is true as to its accuracy in all its representations? A. It is substantially correct.

Q. What do you mean by substantially correct?

A. As accurate as could be made from data and plats and testimony in the case.

Q. Are the various colorings indicated as to what they represent by the index on the side? A. They are.

Q. That shown in blue? A. That indicates coal.

Q. That is land which has been purchased as coal land, and shown by the plats? A. Yes, coal cash purchase.

Q. And the lands which has a cross or X upon them,
351 what is that?

A. That represents the data obtained from the plats in the Surveyor General's office in Cheyenne, indicating what was found by the surveyor in 1874, or the deputy surveyor, in regard to the character of those lands, who returned them as coal.

Mr. Kelley: We object to this and move to strike it from the record on the ground that it is incompetent, immaterial and irrelevant, for the reason that there is no evidence in the record concerning the lands which the witness is now testifying with reference to.

The Witness: Oh, yes, there is; it was taken at Cheyenne.

Q. Now, then, these lands that are represented by a reddish-yellow, brown, for instance, section 18 in township 20 and portions of section 30 in the same township, and section 6 in township 19 and section 12 in township 19, but in range 117, and the two eighties, so designated in section 18, township 19, range 116, what do all those indicate?

A. Those represent the Soldiers' Additional Homestead scrip entries, under which those lands were taken.

Q. Those are the lands that are involved in this controversy?

A. In this suit, yes, sir.

Q. And the other colorings are indicated by the marginal notes there as to color? A. Yes.

Q. As to these plat lines straight down here, what do you say of those, in the lower right hand corner; what are
352 those supposed to represent?

A. They represent creeks as shown on the plats.

Q. That is, the plats that were introduced in evidence?

A. Yes.

Q. What is true as to the towns and coal mines; how are they indicated on here, if at all?

A. Some of the towns are indicated on the plats and are there shown on the map, as shown on the plats.

Q. And by little, black squares? A. Yes.

Q. And what are these finely crossed lead colored sections which I find up through range 116?

A. Those cross hatched designations on the map indicate filings of coal declaratory statements on those lands.

Mr. Burke: Complainant now offers this map in evidence as complainant's exhibit No. 280 for use or reference to be made to it in the further taking of testimony in this case.

Mr. Kelley: The map is objected to in so far as it shows lands which are not embraced in this controversy, on the ground that it is immaterial and irrelevant; also as far as it shows any classifications or lines by which inferentially it is sought to determine the character of the lands, for the reason that they are entirely immaterial in the suit; for the further reason that no date at which these classifications or entries or filings were made has been shown. I wish to ask one or two questions before making a further objection.

353 By Mr. Kelley:

Q. You did not do this work yourself, Mr. Wallis, did you?

A. E. H. Long did it under my direction and supervision. I was present all the time it was being made.

Q. You have some lands indicated in red here that are not involved in this controversy?

A. Just that one up in section 24; it was taken by Forest lieu selection. That is the only one, I think.

Q. Section 24, in which township is that?

A. Well, that is in township 19.

Q. 117 west? A. No, it is 116.

Q. Now, from what source did you obtain the data for that?

A. From the plat?

Q. Filed where?

A. In the Land Office in Evanston, introduced in evidence in this case.

Q. Have you any other lands on the map indicated in red that are not embraced in this controversy?

A. I think this little strip down here at the bottom of the map; section 6, township 18, range 116.

Q. That would be the southwest quarter of the northwest quarter and the northwest quarter of the southwest quarter?

A. Yes, and a little strip above in township 21, range 116, in section 11. Those are not embraced in this case.

Q. How far is the land referred to in section 11, township 21 north, from the most northerly land embraced in this controversy?

A. Well, counting by sections and calling each section a mile, it would be about five miles or a little over.

354 Q. It would be six, wouldn't it?

A. No, because this is not a mile, this part in here. This northerly portion of township 20. The sections are less than a mile there.

Q. There are three forties, about?

A. Just about that.

Q. Now, referring to section 30 in township 20, you have all of the northwest quarter indicated as being embraced in this controversy, haven't you? A. No.

Q. What portion is omitted?

A. The southeast quarter of the northwest quarter.

Q. You say that the towns and the coal mines along this line of outcrop are indicated by what?

A. I said some of the towns were; I didn't say anything about the mines.

Q. Well, what towns; where did you get your information by which you placed on the map the towns in question?

A. From the plats.

Q. Is it not a fact that these towns are not shown upon the plat?

A. Some of them are. I think those on the map all are. All those that I put on the map are shown on the plat.

Q. What towns are indicated on the map?

A. Kemmerer, for one, and it is indicated on this map as it is on the plat from which it was copied. I think Diamondville is also shown on the plat, and also Glencoe and Cumberland.

Q. Don't you know that these towns were all laid out and became populated after the plats were made?

A. I don't know anything about that.

355 Q. You do swear that these are shown on the plats, do you? A. Yes, those that I have indicated.

Q. Now, to what plats are you referring specifically, Mr. Wallis?

A. The plats introduced in evidence, copies of which were furnished to me for making this map by Major Foote.

Q. You did not refer to the original records? A. No.

Q. You don't know whether these records were correctly copied or not?

A. Oh, no, no; I am a stranger to this proposition.

Q. Of course, as to all the data on the map or practically all of it, you are not testifying to any knowledge on the subject?

A. Nothing at all except what I took from the testimony and plats in evidence.

Q. You are an attorney in this suit, are you not? A. Yes.

Q. On behalf of the Government? A. Yes.

Q. Just what is your position? A. My official title?

Q. Yes.

A. Special Employe of the Department of Justice.

Q. Have you been engaged in the collection of evidence and the preparation of this case for trial on behalf of the Government largely?

A. Well, I have been concerned, yes, and employed to prepare the case and investigate it.

Q. You referred to some coal declaratory statements
356 on the map? A. Yes.

Q. And you have shown a great number of them west of the lands in controversy in this case, have you not?

A. I have.

Q. Do you know whether or not these coal declaratory statements have all been abandoned? A. I don't know.

Q. You have a cross-hatching in some of the sections, I think, in the index labeled Coal lands, have you not?

A. Cross-hatched as coal lands—the coal declaratories are shown in this cross-hatching.

Q. What?

A. The cross-hatch markings all indicate coal declaratory statements.

Q. You don't know anything about the condition of those as to whether or not they have been abandoned?

A. I do not.

Q. Why didn't you put all of the record on the map, Mr. Wallis, or have it put on?

A. I have all the records on that the plats show.

Q. Do the plats show whether or not these coal declaratory statements have been abandoned? A. No, sir.

Q. It does not? A. No, sir.

Q. You are positive of that?

A. Yes; those that I have on there are not shown on the plats as being abandoned.

Q. There is no line drawn through them or other evi-
357 dence of cancelation or abandonment?

A. Oh, wherever that occurs it appears here. You will find that they are crossed just as they are on the plat, crossed off.

Mr. Burke: Some of them.

The Witness: I will show you, for instance, there; that is crossed, but this one still remains, 1874. This No. 1326 is crossed; that is in section 32, township 20, range 116. And so all of the others all the way through; wherever I found a crossing on the plat, why, it was indicated also on the map.

Mr. Burke: I suppose that might be indicated in his testimony as a sawbuck cross, rather [an] an ordinary cross.

Mr. Kelley: I suppose so. We make no further objection to the map.

Direct Examination resumed

By Mr. Burke:

Q. You speak of the plats from which this map was made. They are the plats in evidence in this case; is that correct?

A. Yes.

Q. Those were the original plats which were introduced in evidence? A. Yes.

Q. And by agreement, exemplifications were made by the Register from those, and were substituted for the originals, so that they might be retained in the office here?

358 A. Yes.

Q. And it was from these substitutions that you made this map? A. Yes.

Q. You were asked about section 24, and you stated in range 116. Did you mean range 116 or range 117?

A. I meant range 116, yes.

Q. Why do you mean range 116? That section is in range 117, is it not? A. No, it is not.

Q. Here is No. 19, and the west line of 19 is the west line of range 117, isn't it?

A. Let's see now. This is 116 here—oh, yes, it is about where it runs over, that is right. It is 117.

Q. Your section 24, then, is in township 19, range 117?

A. That is right.

Q. That is what I understood. There is also a piece here in section 30 in township 19, range 116, that is indicated in red, isn't there? A. Yes.

Q. That you were not asked about?

A. It is indicated on the map, that it is a Forest lieu selection.

(Witness excused.)

359 Donald McAllister, recalled on behalf of complainant:

Direct Examination

By Mr. Burke:

Q. You have been sworn in this case? A. Yes.

Q. You are the County Clerk of this county? A. Yes.

Q. I will ask you as to what papers you hold in your hand?

A. Schedules of 1903, 1904, 1905, 1906 and 1907.

Q. Of what?

A. Of the Diamondville Coal & Coke Company at Diamondville, Wyoming.

Q. What is the fact as to whether these are parts of the records of your office? A. Yes, they are.

Mr. Burke: Complainant now offers in evidence the return of the assessment schedule of the county of Uinta for the years, 1903, 1904, 1905, 1906 and 1907, as made by the Diamond Coal & Coke Company, and ask to have them marked as complainant's exhibits, Nos. 281, 282, 283, 284 and 285, and that exemplifications may be made of them and substituted for the originals, as they are part of the files of the County Clerk's office. Before further offering, however, I wish to ask a question.

Q. Whose signature is that, if you know, referring to complainant's exhibit No. 281? A. Thomas Snedden's.

360 Q. And whose signatures is that on No. 282?

A. Thomas Snedden's. That is his name. I don't know whether he signed it or not.

Q. Do you know his signature?

A. No, I don't. There is another one there in 1907, different from that. I know his signature, but there are two different.

Q. Whose signature is that in the schedule for 1906?

A. Thomas Snedden's.

Q. Whose signature on the schedule for 1907?

A. Thomas Snedden's.

Mr. Burke: We now renew our offer for these in evidence, asking that exemplifications thereof be made for the record.

Mr. Evans: Defendant objects to the introduction in evidence, first, of the Assessment Schedule marked complainant's exhibit No. 281 in this case, for the reason that the same is incompetent, also irrelevant and immaterial under the issues in this cause, and does not show any facts which have any materiality or relevancy to the issues in this cause; for the further reason that the Assessment Schedule purports to be simply a statement of the taxable property, and is not any statement or facts or admission of the defendant in this cause; for the further reason that the Assessment Schedule was not made and filed under the laws of Wyoming, but is simply the result of an agreement or compromise with the assessor or the board of equalization that had jurisdiction over the property returned, or is made up to follow the direction of the assessor or

361 the board of equalization, and is therefore not a statement of fact by the defendant in this cause or any one representing it; for the further reason that the execution or identification of the schedule has not been proven, and no proper foundation has been laid for the introduction thereof, and in that connection I would like to ask Mr. McAllister one question now.

By Mr. Evans:

[A.] Mr. Burke asked you about the signature upon the schedule, taking each one of the exhibits, and I believe you replied "Thomas Snedden." Did you mean that was the name Thomas Snedden or the signature of any particular person?

A. No. That is the name "Thomas Snedden".

Q. Well, all that you meant to reply was that the name Thomas Snedden is signed to the document?

A. That is all.

Q. You are not basing your statement on any knowledge of the signature or any information? A. No, sir.

Mr. Evans: We object to the schedules or sheets attached to complainant's exhibit No. 281 for the further reason that the schedules, insofar as they refer to the property of the Diamond Coal & Coke Company, are not verified or executed by law. We make the same objection to each assessment schedule and to the sheets which are attached together and offered by the complainant, marked by the stenographer, complainant's exhibit No. 282.

By Mr. Evans:

Q. Mr. Allister, your statement as to replying about the
362 name or signature of Thomas Snedden applies to each one of these schedules, does it not? A. Yes, sir.

Q. Mr. Allister, I show you the sheets attached to the one marked complainant's exhibit No. 283, and ask you, first, who attached those sheets on there? A. I don't know.

Q. Were they so attached in your office?

A. I couldn't say. The assessor may have attached them.

Q. Do you know whether they were so attached in your office, or did you do it?

A. No. They were not attached in our office.

Q. Do you know how they came to be grouped together, those sheets? A. No, sir.

Q. Now, in answer to Mr. Burke I understood you to reply that the sheets which he was showing to you were the Assessment schedules returned by the Diamond Coal & Coke Company for these years? A. Yes, sir.

Q. I show you exhibit No. 283, and ask you first, if the first page of that, which seems to be a loose sheet attached, is any part of the Assessment schedule as returned to you or filed in your office?

A. No, it is not. It is a sheet attached to the schedule, and the schedule in its printed form.

Q. The last sheet, which is marked assessment schedule of property for the year 1905, is the only sheet, and comprises the assessment schedule as filed in your office?

A. Yes, sir.

363 Q. What is the second sheet attached to this exhibit No. 283, the middle one, and which is marked, or has at the top, Diamond Coal & Company, lands exempt under the mining law, etc. Is that any part of the Assessment Schedule?

A. No, sir.

Q. Was that attached to or a part of it in the files of your office? A. Well, I never attached it to it, no.

Q. Well, as filed in your office, was it any part of the Assessment Schedule, itself? A. No, sir.

Q. Now, in answering Mr. Burke and identifying this Assessment Schedule for the year 1905, did you intend to state that these two, first loose sheets that I first called your attention to, were any part of this assessment Schedule; did you intend to identify them as part of that?

A. Well, as being attached to that; I thought that was part of the Schedule, but the Schedule is simply this last sheet.

Q. Are you referring to anything more than the last sheet in replying to Mr. Burke and identifying the assessment schedule of the Diamond Coal & Coke Company for the year 1905.

A. No, just to the last sheet with the signature.

Mr. Evans: To Complainant's exhibit No. 283 we make the same objection as stated to the other schedules, and the further objection that attached to the Assessment Schedule identified by the witness are two loose sheets which form no part thereof, have not been identified by the witness or recognized as a part of the files of his office, and that each of these sheets shows upon its face that it is no part of

364 the Assessment Schedule, and is not identified or connected in any way with this cause.

By Mr. Evans:

Q. Mr. McAllister, I show you complainant's exhibit No. 284, which is composed of four sheets fastened together, and ask you what part of that is the Assessment Schedule that you referred to in replying to Mr. Burke and identified as the assessment schedule of the Diamond Coal & Coke Company, filed in your office?

A. This first sheet is the schedule. The other part, I dont know how it came there. Probably the assessor put it on for his own, personal use.

Q. Are these three, last sheets, the three attached to exhibit No. 284, in addition to the one labeled at the top "Assessment Schedule", any part of the Assessment Schedule which is filed in your office in accordance with law?

A. It is attached to it, but it is not a part of the Schedule.

Q. It is attached to it now? A. Yes.

Q. Do you mean to identify or to state these three, last sheets are any part of the Assessment Schedule, beyond the fact that they are attached to it now?

A. No. The Schedule as I understand it, is this printed form here, the one sheet where the signature is. The other is put on by the assessor for his own benefit, I presume.

Mr. Evans: We make the same objection to complainant's exhibit No. 284 as stated to [to] 283, only in 284 the
265 particular objection to the loose sheet applies to the three last sheets on 284. We object to all of 284 except the first sheet which is labeled at the top "Assessment Schedule", and is a printed form to fill out.

By Mr. Evans:

Q. I show you, Mr. McAllister, complainant's exhibit No. 285, and ask you how much of that is the Assessment Schedule you referred to in answering Mr. Burke and identified as the Assessment Schedule of the Diamond Coal & Coke Company?.

A. Just the last sheet, the one on the printed form, the same as before.

Q. And you do not mean to identify the balance, the other four sheets upon this exhibit No. 285, as any part of the Assessment Schedule? A. No, sir.

Mr. Evans: We make the same objection to exhibit 285, as to 284, except that it is referring to the additional sheets and objecting specifically to that, the objection should state that the objection is to the four first sheets upon 285, being all but the last sheet, the printed form, the lawful assessment schedule.

By Mr. Evans:

Q. Now, there is just one more. Upon complainant's exhibit No. 281, Mr. McAllister, the last sheet seems to be or purports to be a return from the Mountain Trading Company. I will ask you if you meant to identify that as an assessment schedule of the defendant in this case, the Diamond Coal & Coke Company. A. No, sir.

366 Mr. Evans: In addition to our objection to 281, we object to the last sheet, the assessment schedule of the Mountain Trading Company, as irrelevant and immaterial and having nothing to do in any way with the issues in this action.

Direct examination resumed

By Mr. Burke:

Q. Who is the Mountain Sheep Trading Company that you refer to here in exhibit No. 281?

A. The Mountain Trading Company of Diamondville.
Q. Whose company is that?

Mr. Evans: We object to that as immaterial, irrelevant and incompetent, and having nothing to do with the issues in this case; further, because it is not proper way of proving the ownership of the company or what it is.

Mr. Burke: It is possible that the objection is good.

Q. What is the fact as to whether these several exhibits as marked here, constituted of these several sheets, are or are not in the same shape in which they came into your office and became part of the files of your office?
A. That I dont know. All I know is the printed form of the schedule.
Q. Why do you say that that is the schedule; because it is so printed on the form? A. Yes, sir.
367 Q. And that is your only reason that that is the schedule and the only schedule? A. Yes.
Q. Now, taking, for instance, exhibit No. 283, we find the second sheet refers to certain land as exempt from taxation. You are not aware that that has to be made as part of the schedule and claim?

Mr. Evans: We object to the question as leading, telling the witness what to state.

A. That is not my business at all; that is the assessor's business.
Q. And you don't mean to say that it ought not to be made part of the schedule or claim of the Company, any claim that it makes in that respect, do you?

Mr. Kelley: Objected to as leading and improper examination on redirect. Counsel certainly knows it is leading.

Q. Answer the question.
A. I don't know what you are trying to get at.
Q. Do you mean to say that that is not a part of the schedule as it should be returned under the law?
A. I certainly do; that under the law it should be made on one of these forms.
Q. Can you point to any law or statute which requires it to be made on any particular form?

Mr. Evans: Objected to as leading and also incompe-
368 tent and no part of the examination, being a legal argument between counsel and the witness.

Q. Answer the question.

A. The report returned from the Secretary of State is made up on a printed form to the office. We take that form from the Secretary of State.

Q. That is your only reason for saying that a sheet attached to it is not a part of the schedule? A. That is all.

Q. Who is the assessor who turned these various exhibits or sheets into your office, that has been marked these several exhibits?

A. There have been different assessors for different years.

Q. Do you know who the assessor was for 1903?

A. John Sites, I believe; I would not be sure, because there is no name here to identify it—Austin C. Sloan was supervising assessor. I can't tell from this. There is nothing here to show it at all.

Q. It is John M. Sites, isn't it?

A. Yes, John M. Sites.

Q. And 1904 the same?

A. Yes. 1902—this is on the 1902 form. This is 1904, and that is a mistake of the printer. It is the 1904 schedule.

Q. Was he the assessor at that time, do you know?

A. No, I don't know until I would look up the books for it. This one is on the wrong form, the 1904 schedule. There was an error made by the printer in putting 1902 on the outside of the schedule.

Q. Have you got your books here from which you can
369 tell who the assessor was in that year?

A. No, sir. John M. Site's name is here.

Q. Can you tell who the assessor was in 1905?

A. Austin C. Sloan, supervising assessor.

Q. And 1906? A. Austin C. Sloan.

Q. And 1907? A. Austin C. Sloan.

Q. Does he live here in Evanston? A. Yes.

Q. Does Sites live here? A. No, sir.

Q. Where does he live?

A. In Sattle, I think, in Washington somewhere.

Q. That is the extent of it as far as you know. These several exhibits, made up of the several sheets respectively are in the same shape now as they were when they came into your office and became part of the files of your office?

Mr. Evans: Objected to as leading and on the ground that the witness has already stated that he does not know.

A. Well, I don't know that they were the same. They were that way now when I looked them up today or yesterday; that is the way I found them and I took everything that was attached to them just as they were.

Q. How long have you been County Clerk?

A. Since 1903.

Q. Has any one had access to these, within your knowledge, except yourself? A. Yes, sir.

370 Q. They have? A. Yes, sir.

Q. How long do you know as to their being in the same shape and condition that they are now?

A. Well, I don't know. After the assessment is put on the books, they are wrapped up and put into a back part, and nothing connects them with the office at all.

Q. That is, the assessment is carried on the assessment books or roll from these?

A. Yes, and these are put into a cuddy hole in the back of the jury room.

Q. Who puts that on to the roll?

A. Austin C. Sloan or Sites.

Q. That is the assessor? A. Yes.

Q. Have you that roll with you? A. No, sir.

Q. Is it in your office? A. Yes, sir.

Q. Have you compared it in terms or schedules with your roll?

A. No, sir. Mr. Wallis came and asked me to look up these schedules and I got them out and did not compare them at all; I took them just as they were.

Q. You found them in the repository where they are kept?

A. Yes.

Q. In your office?

A. No, not in my office at all.

Q. They were in the place where you keep them for storage? A. Yes, sir.

371 Q. Will you produce the roll book and show the entries therein as they relate to these several exhibits?

A. Yes, if you will give me a wagon to fetch them over here.

Q. Will it take several of them? A. Yes.

Mr. Burke: We now offer in evidence the papers marked for identification Nos. 286, 287, 288 and 289, together with the two sheets of the certificates, one the certificate from the Secretary of State, and the other from the State Auditor, Leroy Grant, being the Annual Report of the Diamond Coal & Coke Company for the year, 1905, as made to the office of the State Auditor, and the three following sheets being the Annual Report of the Diamond Coal & Coke Company, of mines Nos. 1, 2 and 4 for the year 1906.

Mr. Evans: Defendant objects to the papers offered as exemplified copies of the Annual Report of the Diamond Coal & Coke Company for the years, 1905 and 1906, for the reason that each of said papers is immaterial and irrelevant and incompetent and does not prove or tend to prove any of the issues

in this case; for the further reason that each of said papers, if the same contains any statement or admission regarding any of the facts connected with the property in issue in this case, relates to a date long subsequent to the period at issue, and material in this cause; for the further reason that the statements in each of the said reports show upon their faces to be simply voluntary statements, not required or authorized by law,
372 and in no way binding upon the defendant in this action; for the further reason that the reports show upon their faces that the only material fact, and the only fact verified upon the face of the report, is as to the amount of output from certain mines of the Company making the report.

Papers referred to, admitted in evidence, as exhibits Nos. 286, 287, 288 and 289.

Whereupon further hearing was adjourned until Wednesday, March 25th, 1908, at 9-30 A. M.

373 Wednesday, March 25th, 1908, 9-30 A. M.

Donald McAllister, recalled on behalf of complainant,

Direct Examination

By Mr. Burke:

Q. Have you examined your assessment roll for the years, 1903, 1904, 1905, 1906 and 1907, and ascertained as to whether or not the returns as made by the Diamond Coal & Coke Company as shown in exhibits Nos. 281, 282, 283 and 284 are carried upon the assessment rolls for those years?

Mr. Kelley: Objected to on the ground that there is no evidence to show that these returns are made by the Diamond Coal & Coke Company? A. Yes, sir.

Q. And what did you find to be the case. Are they so carried on the rolls? A. Yes, sir.

Q. As made in those exhibits? A. Yes, sir.

Q. Including the exemptions, the description of lands claimed as exempt?

A. Yes, sir, only for two years, 1903 and 1904, there is nothing exempt on the assessment roll.

Q. For 1903 and 1904? A. No.

Q. But for 1905, 1906 and 1907 they are carried on it
374 as [—] A. Yes, sir.

Cross-examination

By Mr. Evans:

Q. Mr. McAllister, are these schedules and sheets attached, or the papers that you produced here yesterday for Mr. Burke, part of the regular files of your office at all?

A. No, sir.

Q. In other words, do you file them?

A. No sir.

Q. How do they come into your possession as county clerk?

A. By being clerk of the Board of Equalization, and they left them there, and I piled them up and put them past in a place behind the jury room, to get rid of them.

Q. Who has access to them?

A. Why, everybody, the sheriff and the clerk of the court.

Q. Who was examining these papers before you brought them over here; who called your attention to what was wanted here, particularly? A. Mr. Wallis.

Q. Were they all fastened together in that way when you found them back there? A. Yes, sir.

Q. Part of them are [jult] simply fastened with these little, loose, easily detached fasteners, are they not?

A. Yes, sir.

Q. Mr. McAllister, how are these schedules noted on the tax books. Are there blanks on the tax roll for filling on that data about the exemption?

A. No; it is simply written in full with the assessment.

375 Q. Just noted on the books of the assessor?

A. Yes, sir.

Q. You don't know where he gets his information?

A. No, unless he gets it from these schedules, from these sheets. The information of exempt land, as I understand it, comes from the State Auditor or the State Board of Equalization, I should say.

Q. Mr. McAllister, how long have you been County Clerk and Recorder of this county? A. Since 1902.

Q. Then, you went into office January, 1903?

A. Yes, sir.

Q. And as County Clerk you have been during that time acting ex officio as clerk of the County Board of Equalization, have you not? A. Yes, sir.

Q. Your County Board of Equalization surprises the work of the County assessor, that is, they lower and raise the taxes and valuations upon the property in the county as they see fit, do they not? A. Yes, sir.

Mr. Burke: We object to that as immaterial and irrelevant. The law governs that matter; it also is not cross-examination.

Q. Mr. McAllister, it is the custom of your Board of Equalization, is it not, to look into the valuations at which different pieces of real and other property are returned?

A. Yes, sir.

Q. And lower or raise them as it seems proper to them?

376 Mr. Burke: Objected to as immaterial and irrelevant.

A. Yes, sir.

Q. It is also the custom, and has been during these years, for your County Board of Equalization to take up the assessment of the large owners and to fix the valuations upon the different pieces of property, and then in consultation with the party, the owner or representative, to compromise upon the values of the different pieces of property, is it not?

Mr. Burke: Objected to as immaterial and irrelevant and not proper cross-examination.

A. Yes, sir.

Q. And upon a piece of real property where your County Board of Equalization fixes a valuation, say, for the year, takes up the matter and adjusts it, that guides the assessor in fixing the valuation upon that property for the next year, does it not?

Mr. Burke: Same objection, immaterial and irrelevant and not proper cross-examination.

A. Yes, sir.

Q. And no other valuation would be accepted by the assessor than that fixed by the County Board in the previous year, in the absence of some particular change in the property; that would be accepted by the assessor or the County Board the next year. Is that true?

377 Mr. Burke: The same objection, immaterial and irrelevant and not proper cross-examination.

A. Yes, sir.

Q. Now, in regard to these, you don't know, and I believe you told me how these exemption figures or data appear upon the county books, upon your county roll; it is simply filled in there by the assessor? A. Yes, sir.

Q. Now, is it not a fact that it is the practice of your County Board of Equalization to scrutinize these exemptions, the data which make up the exemptions, and to pass upon them whether they are acceptable to the County Board or not?

Mr. Burke: Objected to as immaterial and irrelevant and not proper cross-examination. It is a matter that is determined by law.

A. Yes, sir.

Q. Has it not been the practice and custom of your County Board of Equalization, during the period that this exemption law has been in force, in arriving at what property should be properly included in an exemption schedule by a coal mining

company or operator, to include in that schedule all the lands which are adjacent or contiguous to their working coal shaft, whether coal was actually being, or even had been taken from that particular mine or not?

Mr. Burke: Objected to as immaterial, irrelevant and incompetent and not proper cross-examination.

378 A. Not all the lands adjacent, because that would exempt everything they would own. The principle they have gone on was the section whereon the mine was situated, and the adjoining section only, the one mine.

Q. That is what I wanted to get at. It has been the custom of the County Board to approve and receive upon these exemption schedules the exempting of the property that was adjacent to the working shaft, but which never had been mined and was not being mined at that time?

Mr. Burke: The same objection.

A. Yes, sir.

Q. In other words, they have not required coal actually mined from all of the ground exempted.

Mr. Burke: The same objection.

A. No, sir, because they did the same with the other companies, with the Cumberland and the Kemmerer.

Q. I mean in all these questions, I mean the general practice. I don't mean as relating to any particular company, but that is the way the exemption statute has been construed and put in force by your County Board, isn't it?

Mr. Burke: The same objection.

A. Yes, sir.

Mr. Evans: I wish to add to the objection these files
379 that it does not appear that they are documents that are filed with Mr. McAllister or part of the files which the law authorizes and directs him to take custody of and keep as county clerk and recorder; that the same are simply stored in his office for convenience, and are open to access of the public generally.

Recross Examination

By Mr. Burke:

Q. Mr. McAllister, as to these four exhibits, have you any remembrance of any one asking for them previously to Mr. Wallis calling for them? A. No, sir.

Q. Who found them for him? A. I did.

Q. What is true as to whether they are now just as you found them? A. Yes, sir.

Q. He did not know where they were, did he, Mr. Wallis?
A. No; I fished them out.

(Witness excused.)

380 Frank M. Foote, recalled on behalf of complainant:

Direct Examination

By Mr. Burke:

Q. You have been sworn in this case? A. Yes, sir.

Q. Have you examined the signature as it appears on exhibit Nos. 281, 282, 283 and 284; I refer to the name Thomas Snedden. A. Yes, sir.

Q. Are you acquainted with Thomas Snedden's signature?
A. I have seen it a great many times, yes, sir.

Q. What would you say as to whether those are his signatures to those several exhibits?
A. I believe it is, yes, sir.

Cross-Examination

By Mr. Evans:

Q. Mr. Foote, did you volunteer to the gentleman that you knew Mr. Snedden's signature?
A. I think I was asked if I knew it.
Q. Weren't you in the court room yesterday?
A. I was in the other room; I think I was in here a few moments.
Q. When the question of his signature was up?
A. No, I think not.
Q. Do you recall now, did you suggest then that you knew his signature, or did they inquire of you?
A. Why, I think they must have asked me; I don't remember volunteering.

381 Q. Can't you recall the conversation occurring yesterday afternoon as to whether you started it and suggested to counsel that you knew it, or they to you?
A. I am satisfied I was asked the question if I knew his signature. I know I did not volunteer anything.
Q. How many times have you seen Mr. Snedden's signature?
A. That I could not answer; I presume a great many times. He has done a great deal of business through our office since I have been in this land office.
Q. Does his signature vary considerably from time to time?
A. Oh, yes, as any one's will; different pens and different inks and positions.
Q. Haven't you observed that Mr. Snedden's signature varies more than the ordinary man, from time to time?
A. I couldn't answer that; I don't know.
Q. Does this look like his normal signature?

A. It does to me, yes, sir.
Q. Exactly?
A. Well, it looks like it; I should say that is his signature.
Q. If I should show you some of Mr. Snedden's signatures, would you undertake to say that you could pick them out?
A. Oh, I don't know; I don't claim to be an expert at all.

Re-direct Examination

By Mr. Burke:

Q. Now, Major, I wish to call you further as Receiver of the Land Office, and wish to ask you as to what the records of your office show as to whether or not the lands in controversy in this case had been previously entered or filed upon,
382 that is, prior to the time when they were entered with Soldiers' Additional Scrip as shown at the last hearing?

Mr. Kelley: Objected to on the ground that it is incompetent, irrelevant and immaterial for any purpose in the case, and that the records are the best evidence.

Q. What are the facts?
A. Yes, sir; I can answer that question.
Q. In what records of your office do such filings or entries appear?
A. In the original entry books, the Final Entry Books, the plats and the tracts.
Q. You will please return to the Original Entry Book of Homesteads as relating to section 18, township 20 north, range 116 west, and exhibit such entries as were made upon that section prior to the entries as made heretofore testified to with Soldiers' Additional Scrip.
A. Section 18, township 20, range 116?
Q. Yes.
A. Now, you want entries made prior to the Soldier's additional scrip?

Mr. Evans: Our objection goes to all of this.

Mr. Burke: Yes, and it may be considered as going to all of the matters. I am going straight through all of the lands in this respect.

383 Mr. Kelley: We will make one full objection, then. Defendant objects to the introduction of the evidence with reference to the particular sections now asked concerning, and to all sections or other subdivisions involved in this controversy, upon the ground that it is incompetent, irrelevant and immaterial for the purpose of supporting any of the issues in the case; for the further reason that at the time the Soldiers' Additional scrip entry was made on each of the subdivisions,

and patent issued thereon, it was determined by the United States Land Office that no other rights existed in or to any of the premises in controversy in this action; further, for the reason that under the complaint in this action that at and prior to the time when the entries of the lands in controversy were made all of such lands were public domain, belonging to the United States government, and subject to entry; and, generally, for the reason that it is immaterial to the issues in the case.

Mr. Burke: It is understood that this objection goes to all of this line of proof offered through Mr. Foote, the Receiver of the Land Office at Evanston.

A. The first entry is No. 1433, made March 28th, 1898, by William Snedden, for the southeast quarter. That was cancelled by relinquishment May 1st, 1899.

Mr. Burke: I offer that line No. 15 from the bottom on page 102 of Tract Book No. 22 of the Evanston Land Office.

Line 15, page 102, Tract Book 22, marked complainant's
384 exhibit No. 290 and appended hereto on sheet of exemplifications from said book.

Q. Now, you may state what other entries there are.

A. Homestead entry No. 1434, March 28th, 1908, Thomas Snedden, for the northeast quarter of section 18, township 20, range 116. This is also canceled by relinquishment, May 1st, 1899.

Mr. Burke: We offer in evidence line 14 of the same book last above described.

Line 14 from the bottom, page 102, Tract Book 22, marked complainant's exhibit No. 291 and appended hereto on sheet of exemplifications from said book.

Q. What other entry upon that section has been made?

A. Homestead entry No. 1435, March 28th, 1898, by Robert Snedden, for the east half of the northwest quarter and lots Nos. 1 and 2 in section 18, township 20, range 116; canceled by relinquishment, May 1st, 1899.

Mr. Burke: We offer in evidence line 13 from the bottom upon the same page and book as last above described and ask to have it marked complainant's exhibit No. 292.

Line 13 from the bottom, page 102, Tract Book 22, marked complainant's exhibit No. 292; subject to the same objection by defendant.

Q. What other entry or filing has been made?

Homestead entry No. 1436 on March 28th, 1898, by James Wanless, for the east half of the southwest quarter and
385 lots 3 and 4; canceled by relinquishment, May 1st, 1899.

Mr. Burke: We now offer in evidence line 12 from the bottom of the above mentioned page and book.

Line 12 from the bottom of said page and book, marked complainant's exhibit No. 293, and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

Q. What other filing has been made on that section?
A. That is all, sir, until you get down to the Soldiers' Additional Scrip.
Q. Now, Major Foote, what is true in relation to section 20 of the same township and range; I refer to the west half of the west half and the southeast quarter of the northwest quarter and the northeast quarter of the southwest quarter of that section; what entry does your record show that has been previously made upon that land; I mean previous to the entries by Soldiers' Additional Scrip?
A. I do not find any, sir.
Q. Now, then, turn, if you will, to your records as they relate to section 30 in said township and range, and what is the case as to any entries that have been made on that section prior to the entries by Soldiers' Additional scrip heretofore testified to.
A. Homestead entry No. 1442, made April 11th, 1898, by Charles Amoss, to the southeast quarter of section 30 township 20, range 116; canceled by relinquishment May 8th, 1899.

Mr. Burke: I offer line 15, page 106 of Tract Book
386 No. 22 of the Evanston United States Land Office.

Line 15, page 106, Tract Book No. 22, marked complainant's exhibit No. 294 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection made by the defendant.

Q. What other entry of similar character in that section?
A. Homestead entry No. 1443, made April 11th, 1898, by William C. Penman, to the northeast quarter of section 30-20-116. Canceled by relinquishment May 8th, 1899.

Mr. Burke: I now offer in evidence line 13 on page 106 of the above described book.

Line 13, page 106, Tract Book No. 22, marked complainant's exhibit No. 295 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection made by defendant.

Q. What other like entry made in that section before filing?
A. Homestead entry No. 1444, made April 11th, 1898, by Thomas Kirby for the east half of the southwest quarter and lots 3 and 4, 30-20-116. Canceled by relinquishment, May 8th, 1899.

Mr. Burke: We now offer in evidence line 12, page 106 of the above described book.

Line 12, page 106, Tract Book No. 22, marked complainant's exhibit No. 296 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

387 Q. Any other like entry in that section?
A. Homestead entry No. 1445, made April 11th, 1898, by William Fearn, for the east half of the northwest quarter and lots 1 and 2, section 30-20-116; canceled by relinquishment, May 8th, 1899.

By Mr. Evans:
Q. Can you state what part of the section the lots represent?
A. Yes, sir, that would be the east half of the southwest quarter, and lots 3 and 4 would be the southwest quarter and the east half of the southwest, and lots 1 and 2 would be the northwest quarter.

By Mr. Burke:
Q. Were there other entries or filings made on that section?
A. No, sir, except the Soldiers' Additional Scrip entry.
Q. Now, then, turn to your records as to section 6 in township 19 north, range 116 west, and what is the fact as to any entries having been made in that section prior to the entries of the Soldiers' Additional Scrip, as heretofore testified to.
A. Yes, there were entries made. Homestead entry No. 1492, July 5th, 1898, William H. Brown, to the south half of the northeast quarter, the northeast quarter of the southwest quarter and the southeast quarter of the northwest quarter of section 6-19-116; canceled by relinquishment, June 17th, 1899.

Mr. Burke: I now offer in evidence line 15 from the bottom of page 86 of Tract Book No. 22 of the records of the United States Land Office at Evanston.

388 Line 15 from the bottom, page 86, Tract Book No. 22, marked complainant's exhibit No. 297, and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

Q. What other entry, if any, in that section?

A. Homestead entry No. 1493, made July 5th, 1898, by James Thompson, for the southeast quarter of section 6-19-116; canceled by relinquishment June 17th, 1899.

Mr. Burke: We now offer in evidence line 14 from the bottom from said page 86 of said book and ask that it be marked as complainant's exhibit.

Line 14 from the bottom, page 86, Tract Book No. 22, marked complainant's exhibit No. 298 and appended hereto on sheet of exemplifications of said book.

Subject to the same objection by defendant.

Q. What other entry, if any, in that section of like character?

A. Homestead 1538 made October 1st, 1898, by Herbert R. Crosts, for lots 5, 6 and 7 and the southeast quarter of the southwest quarter of section 6-19-116. Canceled by relinquishment, June 17th, 1899.

Mr. Burke: We now offer in evidence line 13 on said page and book.

Line 13, page 86, Tract Book No. 22, marked complainant's exhibit No. 299 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

Q. What other entry of like character, if any, in that section?

389 A. That is all, sir, except the Soldiers' Additional Scrip entries.

Q. Will you turn to your records as they relate to section 18 in said township and range and state what they are as to any such entries as we have been referring to.

A. Homestead entry No. 1494, made July 5th, 1898, by Charles Aitken for the west half of the northeast quarter and the east half of the northwest quarter of section 18-19-116. canceled by relinquishment June 17th, 1899.

Mr. Burke:

We now offer in evidence line 18 from the bottom of page 90, Tract Book No. 22.

Line 18 from the bottom of page 90, Tract Book 22, marked complainant's exhibit No. 300 and appended hereto on sheet of exemplications from said book.

Subject to the same objection by defendant.

Q. Are there any other entries in that section?

A. Yes, sir. Homestead entry No. 1495, made July 5th, 1898, by James Aitken for the west half of the southeast quarter and the east half of the southwest quarter. Canceled by relinquishment, June 17th, 1899. Then, there are five cash coal entries in this section.

Mr. Burke:

I now offer in evidence line 17 from the bottom of page 90 of said book and ask to have it marked.

Line 17 from the bottom, page 90, Tract Book 22, marked complainant's exhibit No. 301 and appended hereto on
390 sheet of exemplifications from said book.

Subject to the same objection by defendant.

Q. Major, you will please return to your records as they relate to section 12 in township 19, north, range 117 west, and state what they show as to any entries as were made prior to the Soldiers' Additional Scrip heretofore testified to.

A. Homestead entry No. 1503 made July 16th, 1898, by Ernest Stevenson for the north half of the northeast quarter and the north half of the northwest quarter of section 12-19-117. Canceled by relinquishment June 17th, 1899.

Mr. Burke:

I now offer in evidence line 17 from the bottom of page 88, Tract Book 23 of the United States Land Office records at Evanston.

Line 17 from the bottom, page 88, Tract Book 23, marked complainant's exhibit No. 302 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

Q. Any other entries in that section of a like character?

A. Yes, sir. Homestead entry No. 1508 made July 16th, 1898, by Charles Gove to the south half of the southeast quarter and the south half of the southwest quarter of section 12-19-117.

Canceled by relinquishment May 8th, 1899.

Mr. Burke:

I now offer in evidence line 16 upon said page and book.

Line 16 from the bottom, page 88, Tract Book 23, marked complainant's exhibit No. 303 and appended hereto on sheet of exemplifications from said book.

391 Subject to the same objection by defendant.

Q. Are there any other like entries in said section?

A. Homestead entry No. 1509 made July 16th, 1898, by George Haddock to the north half of the southeast quarter and the north half of the southwest quarter of section 12-19-117. Canceled by relinquishment May 8th, 1899.

Mr. Burke: We now offer in evidence line 15 of said book and page. Line 15 from the bottom, page 88, Tract Book 23, marked complainant's exhibit No. 304 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

Q. Are there any other entries of like character as made in that section?

A. Homestead entry No. 1511 made July 16th, 1898, by James McDonald to the south half of the northeast quarter and the south half of the northwest quarter. Canceled by relinquishment May 8th, 1899.

Mr. Burke: I offer in evidence line 14, page [—], Tract Book 23. Line 14, page 88, Tract Book 23, marked complainant's exhibit No. 305 and appended hereto on sheet of exemplifications from said book.

Subject to the same objection by defendant.

Mr. Burke: I now offer in evidence in each and all of these several entries the headlines as explanatory of the entries as therein made.

392 Recross Examination

By Mr. Evans:

Q. Mr. Foote, in each of these cases, in all of the entries made upon your Tract Book, the party files his application and non-mineral affidavit, and you make your first entry upon this Tract Book from that, do you not?

A. No, the first entry is made in the Original Entry Book, and then from that to the Tract Book.

Q. Then, when the relinquishment is filed by the party, you enter that first on the Original Entry Book?

A. Yes, sir.

Q. And then upon the Tract Book?

A. Then upon the Tract Book; then the plat is canceled by running a line through the number.

Q. What kind of entry do you make of cancelation, anything more than running a line through the number in your original book? A. No, sir.

Q. This Tract Book that you have here is nothing more than an index, is it?

A. Well, it is what you might call the true history of every section in our district; it is supposed to be.

Q. It is simply a summary of what is shown on these various papers that are filed, isn't it? A. Yes, sir.

Q. And taken from your original entry book?

A. Yes, sir.

Q. Now, in each of these cases, in every filing that you have given this morning, these homestead entries, there

393 was filed the usual written application? A. Yes, sir.

Q. And the non-mineral affidavit? A. Yes, sir.

Q. That is true in every case? A. Yes, sir.

Q. And then nothing more was done by the applicant, as far as these records show, until the filing of the relinquishment? A. No, sir.

Q. That is, there was nothing more shown?

A. Nothing more than our records could show or would show.

Q. There was nothing to be done by the applicant, except such acts of possession?

A. Their final proof of relinquishment.

Q. Nothing except what he did in connection with the possession of the ground? A. That is all.

Q. Where are the original filing papers, the application and the non-mineral affidavit in each of these cases?

A. They are all in the Department in Washington.

Q. In each of these cases, in addition to non-mineral affidavits, there is what you call a homestead affidavit made with the application? A. Yes, sir.

Q. And all of those papers are where?

A. In Washington, in the Department.

Q. They were there, but do you know where they actually are. That is where they are left, of course. What do you know as to where these particular papers are?

394 A. Well, I know that we have forwarded them. Every month's business we forward on the first day of the following month to Washington. Of course, that ends our jurisdiction.

Mr. Evans: Have you those original papers here, Mr. Burke from Washington?

Mr. Burke: No, I have got the record.

Mr. Evans: Have you got them, Judge Birch?

Mr. Birch: No, I haven't got them.

Mr. Evans: We tried to get them from Washington and we were informed, I believe, that you had them.

Mr. Burke: Well, I dont know that I have got them at all. I may have all of these.

Mr. Birch: I could not say personally as to where they are. I have no doubt that I had them before me when I drew this bill, and very likely they may be in my office yet, or they may have been returned to the Land Office.

Q. You were not in the land office in 1898 or 1899?
A. No; I was in the Phillippines at that time.
Q. Had you been in the Land Office prior to that time?
395 A. Yes, sir.
Q. Can you state, Major, whether the non-mineral affidavits and the homestead affidavits and the filing papers upon homestead entries and required and used by the Department were the same then as they are now?
A. Yes, with the exception of just a line or two, something in regard to its not being occupied or owned by an Indian, which is inserted in the non-mineral affidavit nowadays, and it was not then.
Q. Simply a line to the effect that it is not Indian property in any way?
A. Yes, not owned or occupied by an Indian. Mr. Ausherman will remember that.
Q. With that addition which has been made since, the affidavit is the same?
A. I think it is practically the same, yes, sir.

Redirect Examination

By Mr. Burke:
Q. Now, Major, as to the nature of the relinquishment is that originally made into this Tract Book, that is, the entry of the fact of the relinquishment or cancelation; is that originally made into the Tract Book?
A. It is generally made in both books right at the same time, one right after the other; not necessarily one before the other, but it should go on the Original Entry Book and the Tract Book, and also a line run through the number on the plat book, on the plat.

Mr. Burke: It is understood that the Major may make
396 exemplifications of these several lines with their headlines, which have been introduced now in evidence and that they may be put in the record in place of the original records, which should remain in his office?

Mr. Kelley: Subject to the same objection by the defendant.

Mr. Burke: Subject to the same objection.

Q. There is one other question, Major. Will you state what your records show as to section 24 in township 19 north, range 117, as by whom it was entered?

Mr. Evans: The same objection to that, and the additional objection that it does not involve any of the lands in controversy in this action.

A. Homestead entry No. 1504 made July 16th, 1898, by James Hunter, for the west half of the northwest quarter and the west half of the southwest quarter of section 24-19-117. Canceled by relinquishment February 14th, 1900.

Q. What other entries in that section?

A. Homestead entry No. 1505 made July 16th, 1898, by William Hotchkiss for the west half of the northeast quarter and the west half of the southeast quarter of section 24-19-117. Canceled by relinquishment February 14th, 1900.

Homestead entry No. 1506, made July 16th, 1898, by Andrew O'Neil, to the east half of the northwest quarter and the east half of the southwest quarter of section 24-19-117. Canceled by relinquishment February 14th, 1900.

397 Homestead entry No. 1510, made July 16th, 1898, by William Armstrong to the east half of the northeast quarter and the east half of the southeast quarter. Canceled by relinquishment February 14th, 1900. On February 28th, 1900, forest scrip No. 1—

Mr. Evans: The same objection to this—

The Witness: —made by the Big Blackfoot Milling Company for all of section 24-19-117.

Mr. Burke: I now offer in evidence lines 12, 14, 15, 16 and 17 from the bottom of page 92, Tract Book 23, of the records of United States Land Office at Evanston, Wyoming.

Mr. Evans: We want the record to show the same objection as to this forest scrip as to the two previous entries, in addition to the regular objection.

Lines 12, 14, 15, 16 and 17 from the bottom, page 92, Tract Book 23, all marked complainant's exhibit No. 306 and appended hereto on sheet of exemplifications from said book.

Recross-Examination

By Mr. Evans:

Q. What became of this forest scrip entry; was patent issued on that?

A. No, sir, it has never been issued. It was forwarded to Washington, probably, on the last day of February, 1900.

398 Q. But there has been no relinquishment of it or any cancellation of it as far as the record show?

A. No, sir, the Tract Book does not show it, and this is the book that we go by.

(Witness excused.)

399 Charles Gove, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Birch:

Q. Mr. Gove, state your full name, age, place of residence and occupation.

A. Charles Gove, born in 1849, 4th day of November; residence, Kemmerer.

Q. Occupation? A. Somewhat promoting and mining.

Q. When did you move to the region of Kemmerer and Diamondville; when did you first go there?

A. 1897, in October.

Q. Where did you go to, what place first?

A. Diamondville.

Q. Have you had acquaintance since that time with the operations of the Diamond Coal & Coke Company in that vicinity in a general way? A. Since that time, yes, sir.

Q. Have you known the superintendents of that Company since that time?

Mr. Kelley: Objected to unless the witness knows knowledge the position of the persons.

Q. Well, I say the apparent managers of the business of the Company at Diamondville since that time?

400 Mr. Kelley: Objected to as immaterial.

A. I have.

Q. Who was the first one that you knew in that capacity; who was the first man that you knew as manager there?

A. Mr. Snedden.

Q. What was the general nature of the apparent business of the Company there in that vicinity? A. Mining coal.

Q. Anything else? A. No, sir.

Q. Was it farming, that you know of? A. No, sir.

Q. Was it procuring land, that you know of?

A. Yes, sir.

Q. What county is that in? A. Uintah.

Q. What state? A. Wyoming.

Q. In the vicinity of what general line of railroad was Diamondville situated? A. The Oregon Short Line.

Q. Was there a branch of that road or some independent road in that vicinity running off from the Oregon Short Line?
A. Not at that time.
Q. Has there since been one built? A. Yes, sir.
Q. By whom?
A. I presume it was built by the Oregon Short Line
401 people.
Q. Where did it start from the main line and in what direction did it run? A. South.
Q. Southerly, you mean, or due south. You don't mean absolutely, directly south?
A. Not exactly on the line.
Q. You mean southerly?
A. I mean the most practicable way along the line. Some places perfectly straight.
Q. About how far has it been completed from the main line, what distance?
A. I think it is about nineteen miles.
Q. To the southern terminal point which is now reached?
A. Cumberland.
Q. What, if any, companies are operating in coal matters besides the Diamond Coal & Coke Company, on or adjacent to that line?

Mr. Kelley: Objected to on the ground that it is incompetent, irrelevant and immaterial in that it in no way tends to support or disprove any of the issues in the case; that the time of operation is not fixed, and it is absolutely immaterial.

Q. Answer the question.
A. Known as the Cumberland Coal Company.
Q. Any other?
A. The Diamond Coal & Coke Company.
Q. Well, I say in addition to that? A. No, sir.
Q. Just the Cumberland and the Diamond Coal & Coke Company? A. Yes, sir.
402 Q. How, who did you first begin to work for when you came there, that was engaged in the coal business; when did you first begin to work for any coal company after you came there?
A. Along in the spring, early in the spring of 1898, with Mr. Snedden.
Q. You mean you worked for him, personally, or did you work for the Company?
A. I presume it was for the Company.

Mr. Kelley: We move to strike out the answer of the witness unless he knows who he was working for.

Q. Where did you get your pay?
A. From the Company.
Q. That is, in the Company's office, you mean?
A. Yes, sir.
Q. And from somebody who apparently was at work there?

Mr. Evans: Objected to as leading.

A. It was in the Company's office.
Q. Was that office advertised in any way; did they have any signs whatever to indicate that it was the Company's office?
A. They had a small office at that time, a small apartment office; a store and office combined.
Q. What was advertised on the store and office, combined, any sign of any kind? A. Coal Company Office.
Q. It did not state what coal company?
403 A. No, sir.
Q. Was Mr. Snedden in and about the office and directing operations there, to your knowledge? A. He was.
Q. Now, you state you went to work for him in the spring of 1898; in what capacity; that is, what was your duties?
A. The first work?
Q. Yes, just go on. A. It was some surveying.

Mr. Kelley: At this time we desire to ask the Master to make an order excluding from the room all witnesses except the one occupying the stand.

Mr. Birch: There is no objection to that.

The Master: All witnesses are instructed to leave the room.

Mr. Kelley: We do not wish to include Mr. Veatch, of course.

Q. Your answer was surveying, or assisting about it. Were you surveyor or were you assistant?
A. No, sir, I was chain man.
Q. Who employed you for that purpose?
A. Thomas Snedden.
Q. Who composed the party?
A. Myself, a chain man, and Mr. Newbrough as surveyor.
Q. Could you give us his first name?
404 A. I don't know what his first name is; and my son, a small boy at that time, and a man by the name of Arthur Jewel.
Q. Probably Mr. Snedden was along?
A. Yes, Mr. Snedden also.

Q. All the time in the operations of the party?
A. No, sir; one day he was not there.
Q. All but one day? A. Yes, sir.
Q. Who directed the surveyor or the other members of the party in their movements? A. Mr. Snedden.
Q. Will you please step to the map and state where you started in, and your course during those several days.
A. Our first work was half a mile on town 21.
Q. Half a mile from town 21? A. Yes, sir.
Q. What range? A. 116.
Q. Half a mile north of the township line?
A. Yes, sir.
Q. On what section? A. I don't know what section it was.
Q. Did you go southerly?
A. We came south to the township line.
Q. Of what town? A. Town 20.
[—] In the same range? A. Yes, sir.
Q. 116? A. Yes, sir.

405 Q. What section did you there strike into?
A. We ran down on the east line of section 5.

Mr. Kelley: Objected to as incompetent and immaterial and irrelevant for any purpose in the case.

Mr. Burke: You may allow that objection to go to all of this matter, if you like.

Q. Now, proceed.
A. We started on the north line of township 20. We ran down then on the east line of section 5.
Q. Then where?
A. We continued that line for another mile.
Q. That would be to the corner of 16, 17, 8 and 9?
A. Yes, sir.
Q. Now, go on.
A. Then we ran half a mile west. We closed that what is marked there. That was the first day's work.
Q. Very well.
A. There was some dissatisfaction in regard to the measurements of that line down on that half mile.
Q. That won't be material.
[Q.] Then, we went back. We ran a mile on the same line.
Q. The next day you went back?
A. The second day we went back and we ran that last mile over again.
Q. This mile (indicating)? A. Yes, sir.

406 Mr. Kelley: Do I understand that this witness is qualifying as a surveyor?

Mr. Birch: Not at all.

Mr. Kelley: How does he know where he was?

Mr. Birch: Well, he is stating distances. You can cross-examine on the subject, if you desire.

Q. Proceed in your own way.
A. The second day we ran that mile over again and we found the corner.
Q. What corner?
A. I don't know what corner it was.
Q. All right. You found a corner?
A. We found a corner there and Mr. Newbrough said it was a corner. It was marked corner. Then, we had to drop down west a quarter of a mile.
Q. From that corner? A. Yes, sir.
Q. Then, where did you go?
A. We ran a mile south, then. Then, we turned and ran a mile and a half west. Then, we ran back to the east line, and he said that we were running between two sections, on a section line. Then, we ran back north to the township line.
Q. Very good. Did that complete your second day?
A. That completed the second day.
407 Q. Now, what did you do the next day?
A. The third day we went down below what is known as the Gap in township 19.
Q. You mean section 19?
A. In township 19. We ran south there for two miles and west, one mile.
Q. Can you point out or state to what point that brought you, as you understood?
A. He said we were running north on the range line. The surveyor was running north on the range line in order to find the corners. We didn't find corners along on those section lines all the time.
Q. Very well. Go on.
A. Then, we ran back to the north line of township 19.
Q. That was the third day? A. The third day.
Q. Did that complete the third day's work?
A. That completed the third day's work.
Q. Then, what did you do?
A The fourth day we went down and ran two lines. We ran an east line along over on to the ends of this hogback which runs in there. We ran down one mile and ran one mile west and one mile north and went around a section.
Q. Could you tell what section that was?
A. He told me that was section 12.

Mr. Kelley: We object to the witness stating what he was told as incompetent and hearsay.

The Witness: I didn't make any notes.

408 Q. Now, you can go on.

Mr. Kelley: May we inquire who told him?

The Witness: The surveyor told me.

Q. Go on.

A. And when he came around he said that he had found two corners around that section, and that was all the Government stones there was, so we went back home.

Q. Did that complete your operation?

A. That completed it.

Q. Which of these days was Mr. Snedden absent?

A. It was the third day.

Q. He was there again the next day?

A. He was back on the last day.

Q. That is the fourth day?

A. The first and second day and the last day.

Q. Now, did you at any time have any conversation with Mr. Snedden during this journey as to the purpose in running these lines?

Mr. Kelley: Objected to as incompetent, irrelevant and immaterial, not a conversation which binds in any way or is shown to bind the defendant corporation.

A. Yes, sir.

Q. Please state what they were and how they occurred in words and language if you can; if not, state the substance
409 of the conversation, to the best of your recollection.

Mr. Evans: The same objection by defendant.

A. We had a conversation the two first days much more than we did at any other time. Our first conversation was in the first day's work. We wanted to keep along on this line of the coal company, the outcrop of these coal measures.

Q. Go on and state the conversation.

A. After we had gone down into township 20 about a mile and a half he said, "Stop here until I go up and examine this coal." There was a hole dug there. He came back and he said, "That is all right. Keep on that line till you get over this coal measure." So I said, "You had better go on down ahead there and go where you want this line to run." So he went on and acted as flag man. We kept on the line that we were running, but we ran a little west of him. That was in the afternoon. Then, late in the afternoon, when we turned west

to run a mile, he said, "We will go down across this here coal cropping here." Then when we came to the west line of this section we hunted for a corner there for some hours and we failed to find it. Then, we were running north, started to run north there, and when we got ready to go home we had no more conversation. Then, on the last day—

Q. You say you had no more conversation?

A. We had no more at that time.

Q. Go on.

A. On the last day of the work, the only conversation was when we turned to run west. I said to him, "Snedden, if it is coal that you are after, why dont you continue this on down and take this in below here? He said, "We
410 have all that we can possibly use for years in this way," motioning this way in behind us here.

Q. What direction would that mean?

A. That was motioning to the northwest. We were standing at the corner of that section at that time and he said, "Oh, no, northwest here we have got coal for years."

Q. Did you have any further conversations with Mr. Snedden or overhear him say anything more about coal during that survey party?

A. Not till a few days after we had got back.

Q. Where was that and what did he say; what was the conversation?

Mr. Evans: Our objection to these conversations may go go to all of the conversations; it may be understood without repeating it.

Mr. Birch: Surely.

Q. Where was it and what did he say; what was the conversation, in other words, not what he said, but what was the conversation?

A. The only conversation I had with him pertaining to that matter was in the acquiring of this coal land.

Q. Just state what it was.

A. He said that he wished to acquire that coal land right in there before the Cumberland people could get it.

Q. Now, was that the substance of the conversation?

A. Yes, sir.

411 Q. What was said about entering the land by him, making any kind of entries on the land to hold it?

Mr. Kelley: Objected to as leading, and the witness has already stated that that was all the conversation or the substance of it.

Mr. Birch: I will put a new question.

Q. At that or any subsequent time, what did he say about the method of holding these lands?

A. That they would put some homestead entries on them in order to keep the Cumberland people from getting them.

Q. In that connection you were asked to make an entry? Did you discuss who should make these homestead entries?

A. No, sir.

Q. Whether you were asked to make a homestead entry; was you asked by Mr. Snedden to make one of these homestead entries?

Mr. Kelley: Objected to as immaterial and also leading.

A. Not directly.

Q. State what the conversation was bearing in that direction, if anything.

A. He said: "Would you take a homestead here?" That is at the west line where we turn to go home, and I said I would.

Q. Did you afterwards do so? A. Yes, sir.
State the circumstances of that.

412 Mr. Evans: We object to this and I would like to have counsel state the purpose of this, if he will, so that we can make proper objections on the record.

Mr. Birch: My purpose and the evidence is to show that Mr. Snedden for the Diamond Coal & Coke Company, procured a large number of homestead entries to be placed upon the lands involved in this suit and other lands in that vicinity, for the express purpose of keeping them from the other people entering, until they got ready to complete those or other substituted entries upon the land in question, [fot] coal purposes, as bearing upon application under which these lands were ultimately taken with scrip, involved in this suit, for the purpose of using them for coal mines, and on account of their coal bearing character, for the use of the Diamondville Coal & Coke Company, knowing them to be coal lands at all times after the original homestead entry, and at the time thereof.

Q. Now, you may state what you did and how you came to do it in connection with your homestead entry.

Mr. Evans: We object to the question and to all proof as to any homestead entries upon any of the lands in controversy for the reason that it is incompetent, also immaterial and irrelevant under the issues in this cause; that there is no connection or offer that it will be shown, between the making of these entries and the defendant in this action, and that the proof is grossly scandalous and impertinent under the

issues in this case, and it appears from the record that
413 all of these homestead entries or filings, rather upon the lands in controversy, were relinquished and title thereof granted by the Government under subsequent entries. We make the further objection to any proof of any homestead entries upon lands other than the lands in controversy in this action, for the reason that it is entirely immaterial and irrelevant, grossly impertinent and scandalous under the issues in this cause.

Mr. Birch I will say in reply to the objection, before the witness answers, that the question which I just asked him, that this testimony is directed to the knowledge of the defendant Company, through Mr. Snedden, of the fact that these lands were coal lands at the time when the entries involved in this suit were made.

A. Quite a little while after that, I can not say whether it was one month or two or three months, it was some time afterwards he said to me: "Could you go to Evanston tomorrow?" I said: "I could." "Then," he said, "if you can go to Evanston tomorrow or the next day, Elmer Stevenson will go over with you and take a team from here and defray all your expenses over there and the expenses of filing upon your homestead." We came over here and filed upon the homestead.

Q. State the details of that; who furnished the description, for instance, that you were to file on?

A. Elmer Stevenson, I suppose, had that. He was the man who presented it to me in Evanston.

Q. Who made out the papers, if you know, the homestead filing, the declaratory statement.

414 A. Mr. Ausherman.

Q. Is that the counsel here in this case?

A. Yes, sir.

Q. Sitting here, in the room? A. He is in the room.

Q. In whose office did you sign and swear to the papers?

A. In the Land Office.

Q. Before what officer; do you remember what officer you swore to them, before? A. No, sir, I do not.

Q. Well, you went to the Land Office and filed the paper and application for a homestead? A. Yes, sir.

Q. You had signed and sworn to that. You swore to that there? A. I did.

Q. Who paid the fees of the office at that time, the entry fees? A. Elmer Stevenson.

Q. Who paid the expenses of the trip?

A. Elmer Stevenson.

Q. Can you identify the land which you filed on at that time, the homestead; can you identify the land or state the description of the land? A. I could.

Q. Please do so.

A. It was the south half of the south half of section 12, town 19 north, range 117.

Q. After that did you have any conversation further with Mr. Snedden about that land, that homestead filing?

415 A. Not till after there was houses built on it.

Q. Was there a house built on your land?

A. Yes, sir.

Q. Did you see it there yourself? A. Yes, sir.

Q. Who built that house, if you know? A. Mr. Dodson.

Q. Is here now today; have you seen him here?

A. I saw him here.

Q. Who paid for it, that is, the erection of the house or shack, or whatever it was?

A. I don't know anything at all about that.

Q. Did you ever pay for it?

A. Not that I ever knowed of.

Q. Were you asked to live in it?

A. They said I might have to live in it.

Q. Who did? A. Mr. Snedden.

Q. Did you go into the house and occupy it at any time?

A. As a resident?

Q. Well, state what you did in relation to occupancy of that house, to put it in that form.

A. I came along there one night, and it was pretty bad and stormy, and I went in there and camped there. I had a camp outfit in the wagon with me.

Q. Is that the only time?

A. No, sir, I went over there one time to shoot some ducks in a pond near it, and it stormed and I stayed in there again.

Q. Any other time? A. No, sir.

416 Q. What did you next do respecting the homestead that you filed on? A. Relinquished it.

Q. How came you to relinquish it?

A. They had an attorney, and I came—

Q. They, who?

A. The Diamond Coal & Coke Company.

Q. What was his name? A. William Root.

Q. Where did he reside? A. In Diamondville.

Q. Was his office there?

A. He might call it an office; it was a tent with a small desk.

Q. What was said and done.

A. He told me that the Company—

Mr. Kelley: We object to this as incompetent, irrelevant and immaterial, and also as hearsay; also for the reason that there has been no foundation shown to justify the admission of this evidence as statements binding on the defendant in any way; no authority has been proved to make these statements.

Q. How do you know that he was the attorney for the Diamond Coal & Coke Company?

A. He told me so, and so did Mr. Snedden.

Q. Well, now what did you do about relinquishing; you said he told you something. Tell us what he told you, Mr. Root, I mean.

417 Mr. Evans: Defendant makes the same objection.

A. He told me that they wished me to relinquish my homestead filing. I said, "For what purpose?" He said that they wished to acquire this land, and then I said, "I will see you in one hour, and if it is satisfactorily I will do it." So I went and found out that it was satisfactorily.

Q. From whom? A. Mr. Burrell.

Q. What was his first name?

A. Andy Burrell, they called him.

Q. What was his business?

A. I think he was general superintendent.

Q. Of what? A. The Diamond Coal & Coke Company.

Q. What did Mr. Burrell say to you?

Mr. Kelley: We make the same objection.

A. He said it was satisfactorily.

Q. Was anything said about any compensation to you for this by anybody? A. No, sir.

Q. He said it was satisfactory. Did you then relinquish?

A. I did.

Q. What did that act consist of, the relinquishment; how did you do it?

A. Mr. Root had some blank papers there, and he said, "This is a relinquishment; sign this paper and you will
418 relinquish your title back to the Government."

Q. Had that paper been filled out, the blank, other than your signature? A. Yes, sir.

Q. And you signed it? A. I did.

Q. And he kept it? A. He kept it.

Q. Were you ever compensated for that act in any way by anybody, were you paid; did you ever receive any pay or compensation for it?

A. Some quite a while after that I did.

Q. State what happened and how it came about.

A. This same man, Mr. Root, and Mr. Snedden told me to come up to the office, that they were going to pay off those that had relinquished their land. I went up there and got my pay.

Q. How much? A. A check for five hundred dollars.

Q. Whose check?

A. Diamond Coal & Coke Company check.

Q. Can you state upon what bank it was drawn?

A. A Montana bank; some Montana bank.

Q. That is as near as you can state?

A. That is as near as I can remember. It was a check that they paid off, anyway.

Q. What were you enabled to do with that check; did you ever get your money with it?

A. A man stood right there and said: "If you want to cash that check, endorse it and turn it in and I will pay it." And I done so right then.

419 Q. Who was the man?

A. I don't remember who the cashier was at that time; I won't be positive, but I think Mr. O'Brien was the man.

Q. Was he a man who stayed in and about the office of the Company? A. All the time.

Q. Apparently in their employ? A. Yes, sir.

Q. Did you ever after that exercise any ownership or occupancy of the land? A. No, sir.

Q. Has any other person or persons since that time done so, to your knowledge? A. Occupied that land?

Q. Yes, done anything of the kind, any operations or anything on the land. A. No, sir.

Q. In that particular land or land in that immediate vicinity, do you know of any outcrop of coal?

Mr. Kelley: We object to that question upon the ground that it is incompetent and it is also immaterial and irrelevant for the purpose of proving the character of the ground at the time when the land was sold by the United States Government.

A. In the immediate vicinity?

Q. You may answer.

A. There was some coal cropping a mile west of it and some a mile and a half east; it was a few hundred feet over a mile and a half east.

420 Q. I asked you about an outcropping, and you say a mile and a half east; what do you mean?

A. One mile and a half east, it is a few hundred feet over a mile and a half, there is coal croppings along in numerous places.

Q. Were they there at the time you entered the land; did you know of their being there at the time you entered the land?

A. The holes that were dug?
Q. Yes, these outcroppings.
A. Those outcroppings was there.
Q. Do you know of subsequent delevopment or digging or excavation, shafts or anything of that kind at any time?

Mr. Kelley: We object to that as incompetent, irrelevant and immaterial for any purpose in showing or attempting to show the character of the land as known coal land.

Q. Proceeded.
A. At the time I made this homestead entry?
Q. Yes. A. There was nothing but the outcropping.
Q. Subsequently do you know of their having been developed by investigation of any kind?
A. Prospect work, not development.
Q. By whom?
A. By the Diamond Coal & Coke Company people.
Q. Was that before your relinquishment or after?
A. After.
Q. Was there anything done before the relinquishment?
A. Not directly on it.
421 A. Not directly on it, but on that piece of ground I was referring to east of this land.
Q. In any other direction from this land were there outcroppings?

Mr. Kelley: I wish you would tell this witness to testify to things that he knows of his own knowledge.

Mr. Birch: I think he does.

Mr. Kelley: I know he does not on some of the things he has testified to.

Mr. Birch: When I ask you a question, Mr. Witness, state if you know of your own knowledge about this thing or whether by hearsay. I understand hearsay would not ordinarily be allowed; just state what you know of your own knowledge. You may proceed in your own way and answer the questions.

A. Yes, sir.
Q. How near and where were they located?
A. Both south and north.
Q. How far, approximately; state as near as you can.
A. They ran all the way along from five hundred feet to a quarter and a half a mile.
Q. That is the outcroppings?
A. The outcroppings; the old, original outcroppings.
Q. About the distance they were located from your land, from your homestead filing.

422 A. They are from a mile and a half to three miles.
In what direction? A. Northeast and southwest.
Q. When were those outcroppings known with reference to the time when you filed upon your homestead claim?
A. Did I know of them at that time?
Q. Yes, and if you know of any of the employes or officers of the Diamond Coal & Coke Company knowing of them at that time, you may state that.
A. I knew of them. I don't know whether the rest of them did or anything about that. I never followed them along.
Q. Of your own knowledge you don't know whether Mr. Snedden or any of those people knew of them or not?
A. He knew they were.
Q. How do you know?
A. He had been down over them; he told me himself.
Q. He stated to you that he knew of these outcroppings?
A. Yes, sir.
Q. He stated that he had been over them?
A. He stated to me that he had been over them.

Cross-examination

By Mr. Kelley:
Q. When did you go to Diamondville, Mr. Gove?
A. It was along in the latter part of October, 1897.
Q. Do you understand and appreciate the nature of an oath?
A. I do.
Q. What is your business? A. My business?
Q. Yes.
423 A. My business has been—at the present time?
Q. Yes. A. It is promoting some deals.
Q. What deals? A. Some of them is in mineral.
Q. And what are the others in?
A. One of them is in a phosphate. One of them is in coal and one of them is in iron
Q. Have you got anything else that you are promoting?
A. Not particularly, sir.
Q. In what manner are you promoting these various enterprises?
A. By looking the country over and finding them; in other words, prospecting to find them.
Q. Are these promotion of things that you have already discovered, or are they expectations, largely? A. No, sir.
Q. Are what? A. They are not expectations.
Q. You have got them? A. I have them.
Q. What do you mean by promoting?
A. Finding something and putting it into shape where it is profitable.
Q. Profitable to whom?

A. The benefit is to myself.
Q. Have you promoted anything thus far?
A. I think I have.
Q. What?
A. The company is known by the Elk Coal Company.
424 Q. Where is that located?
A. It is west of what is known as Glencoe.
Q. How far west?
A. They are operating about three and a half miles west.
Q. Are you operating at the present time?
A. They are sinking some slopes.
Q. How many? A. They are sinking one now.
Q. Is one, some slopes? A. Sir?
Q. I understood you to say that they were sinking some slopes.
A. Yes; they have sunk down two and are running a third one now.
Q. How deep are they?
A. On the twelfth, the last one they were down, they said, two hundred and eighty feet.
Q. Is this property that you own?
A. I own an interest in it.
Q. How much? A. I own six thousand shares.
Q. Out of how many?
A. Six hundred thousand.
Q. You are the promoter of the enterprise? A. I was.
Q. Who were your associates?
A. There were fifteen of us in locating it.
Q. Did you obtain title from the United States Government to it? A. I did.
425 Q. What manner of title did you obtain?
A. Patent; I made application for a patent.
Q. Have you got your patent?
A. I have not got it yet.
Q. Do you expect to get it? A. Yes, sir.
Q. When did you make your application?
A. December 23rd, 1907.
Q. Upon what kind of entry?
A. On the declaratory coal statement.
Q. How many coal declaratory statements have you got?
A. One.
Q. Is this the only one? A. Yes, sir.
Q. How many homesteads? A. One.
Q. The one you have testified with reference to?
A. Yes, sir.
Q. Have you any other business besides that of promotion?
A. No, sir.
Q. Have you ever had any? A. Yes, sir.

Q. What other business?
A. I worked for the Diamond Coal & Coke Company considerable.
Q. In what capacity?
A. I worked for them hauling coal and delivering coal around the camp there and getting out some timber for the Diamond Coal & Coke Company.
Q. When did you last [so] any work for them?
A. The last work I done for them people was getting
426 timber out for them, some mining timbers.
Q. That was several years ago? A. Yes, sir.
Q. Have you worked for anybody else since that time?
A. No, sir.
Q. That was along about ten years ago, wasn't it?
A. I delivered them timbers in 1899.
Q. And since that time you have been engaged in devoting your talents principally to the promotion of various enterprises, have you? A. Yes, sir.
Q. Has this Coal Company that you have promoted paid any dividends yet? A. No, sir.
Q. When was this company formed?
A. It was formed last November, the first of November.
Q. They were formed to take over this land, were they not?
A. Yes, sir.
Q. Have you arranged in any way with Mr. Birch for assistance in obtaining your patent to the land?
A. I don't understand the question.
Q. (Question read.)
A. No, sir. This gentleman here you have reference to?
Q. Well, any of these gentlemen?
A. No, sir, I have not.
Q. When was it that you made this survey that you told us about, Mr. Gove?
A. That was along in the fore part of the spring of 1898.
Q. Now, are you sure of that?
A. I am sure of that.
427 Q. You are positive of the fact that you made this survey in the spring of 1898? A. Yes, sir.
Q. You can not be mistaken? A. No, sir.
Q. You are equally positive that at that time Thomas Snedden was present? A. Yes, sir.
Q. And that Thomas Snedden was an employe of the Diamond Coal & Coke Company?
A. He represented to that.
Q. You don't know, as a matter of fact, that Thomas Snedden was not employed by the Diamond Coal & Coke Company in the spring of 1898, do you? A. No, sir.

Q. Do you remember a man named Sharp?
A. Joe Sharp, yes, sir.
Q. Isn't it a fact that at the time you are testifying about Sharp was superintendent of the Diamond Coal & Coke Company? A. Not in the spring of that year.
Q. No? You are positive of that?
A. He was in the winter.
Q. When did you make this survey?
A. It was in the fore part of April, 1898.
Q. Will you swear that Sharp was not the superintendent of the Diamond Coal & Coke Company in the fore part of April, 1898?
A. No, sir, I don't think he was; I am positive that he was not.
Q. You are positive that he was not?
A. Almost positive.
428 Q. You are equally as positive of that fact as of the other things you have testified to? A. Yes, sir.
Q. You are not a surveyor, Mr. Gove? A. No, sir.
Q. And you do not assume to testify here or qualify as a surveyor? A. No, sir.
Q. You, of course, did not know where you were running except as you were told by the surveyor? A. That was all.
Q. Mr. Newbrough? A. Yes, sir.
Q. And the information that you have given here concerning matters has been purely what was told you by Mr. Newbrough?
A. At that time.
Q. Yes, he told you at that time? A. At that time.
Q. Now, then, will you please describe upon this map the survey that you made at that time. A. On this map?
Q. Yes? A. Yes, I guess I can come pretty close to it.
Q. Well, please do it.
A. We started off a mile north, in township 21; that is what the surveyor tells me now. We chained down half a mile.
Q. Half a mile north where?
A. We chained south half a mile.
Q. Where did you start?
A. Right up here on the east line of this 35.
429 Q. Half a mile north of the southeast corner of 35. Where did you go?
A. We came down to the township line, and we ran down this line just one mile down this east line of 5. We ran down the east line of 8 here, and we came down to the south line of 17.
Q. The southeast corner of 17. Straight down that line?
A. Yes, that line here. Then, we ran west a mile and a half.
Q. That was over to what? A. To the center of 18.
Q. To the southeast corner of the southwest quarter of 18?

A. Then, we ran this same line back.
Q. You ran it back to the southeast corner of 18?
A. To the southeast corner of 18. Then, we ran this east line of 18 straight through here.
Q. How far north?
A. And the west line of 8, back up to the west line of 5.
Q. To the southwest corner of 5?
A. Yes. Then, we came back down here.
Q. That was the southeast corner of 8?
A. The southeast corner of 8; then, we ran this line, and we ran this line.
Q. That is the east line of 17?
A. The east line of 17. Then, we came down a quarter of a mile this here section line—the west line of 17, but on top of the hogback. The second corner that we ran was down over here, southwest a quarter of a mile.
Q. That is, you made an offset?
A. We made an offset.
Q. Where did you go then?
430 A. Then, we ran down through 20.
Q. On what line of 20 did you run?
A. It is the quarter line of 20.
Q. It would be the line running down the west side of the northeast quarter? A. Yes, sir.
Q. Now, where did you go?
A. Well, we ran down to this here as I stated, here; then we ran back down to the corner of 19.
Q. You ran down to the quarter corner in the southeast quarter of 20? A. Yes.
Q. Then, where did you run, west? A. We ran that line.
Q. Along the north line of 29 and 30 and through the northwest corner of 30?
A. Yes, and that is the north line he was—we found our four corners. This was the base line that we ran three sections on, the east base line. In the west half of the east half of 20; that is this line.
Q. Now, is that all you did?
A. Yes, sir. The third day we came down here on to the township line of 19, then we ran down through all the way down through section 32.
Q. To the center line of section 32?
A. To the west quarter line of 32.
Q. You came right down the centerline of 32?
A. Right down the centerline of 32.
Q. Then where did you go?

A. We came down here through 5.

431 Q. Through the center line of 5?

A. Yes. Then, we cut across over here west.

Q. West along the north line of 7 and 8 to the southwest corner of 6, is that right?

A. That is right.

Q. Then where did you go?

A. Then, we took and run down here, down on 12.

Q. That is on the east line of 12 to the southeast corner?

A. Yes, sir.

Q. Where did you go then?

A. Then, they took this line here and ran clear back a mile and a half, to 8.

Q. That is the north line 17 and 18, and how far east did you go? A. A mile and a half from that corner.

Q. That is to the center of 8?

A. Yes, sir. Then we came down here a mile.

Q. Then you ran a mile down the east side of 18?

A. Yes, sir.

Q. Then where did you go? A. Back here.

Q. West of the southwest of 18. Didn't you run down around 18 at all? A. We didn't run around 18 at all.

Q. And this was the survey that Mr. Newbrough made in April, 1898, was it? A. Yes, sir.

Q. Now, then, you ran along the north line of 18 part of the way, and then you came back and ran it over again?

A. Yes, sir.

432 Q. Do you know what was the reason of that?

A. I think he did not find any corners, and he was not satisfied with his line.

Q. Now, did you have any conversation with Snedden about a coal filing that had been made on 18 at that time?

A. No, sir.

Q. A coal declaratory statement? A. No, sir.

Q. Dont you know the reason why you ran that over again and sought a location was that Mr. Snedden had made a coal declaratory statement on the west half of the west half of 18?

A. He didn't say anything about it.

Q. Thinking that he was on the west half of the east half of 18?

A. There was a mistake in the line some way or another.

Q. And Snedden was dissatisfied with it the first time, and insisted on its being run over again?

A. Run over the second time?

[A.]Yes. That is 20 instead of 18.

A. Yes, it was on 20 that we ran the line, and then we went back on 18 and corrected it. I will explain the matter to you as they had it up there. There is town 21, and 20,

there is two sets of corners. One line runs north, and they are seven hundred and sixty feet apart. There was a mistake made on those two corners.

Q. There was a correction line in there? A. Yes, sir.

Q. You mean there was a mistake somewhere, but you didn't know just where it was.

A. I didn't know where it was; that was their idea. I
433 didn't know anything at all about that.

Q. Now, then, you spoke about a conversation, Mr. Gove, which you had with Mr. Snedden, or several. Will you tell me what that first conversation was again, please?

A. About taking coal lands on the south from where we were to work?

Q. That first conversation.

A. That was the only conversation.

Q. What was it?

A. When we turned back, they were running south, and I said to Snedden: "If you want coal lands, why dont you take this on in below here." He said: "We have got plenty of it behind us for years," and he pointed off this way, and he said: "We have got coal for years off in behind us here."

Q. He indicated that he did not want any more; was that the idea?

A. He didn't want any more at all.

Q. Now, then, what were the other conversations you had with him on that trip?

A. We had no other conversations.

Q. You didn't have any other conversations during that survey trip?

A. On the first day or the last day?

Q. Any time during the trip.

A. We had other conversations the first day, considerable.

Q. Well, the second day did you have a conversation with Snedden? A. No more than directing our work.

Q. Nothing else at all. Now, he was gone on the third day and on the fourth day did you have any conversations?

434 A. Yes, sir; that was the day that I said, "Why dont you take the rest of this coal land down below here," and he said, "We have enough of it in above us now for years to come.

Q. He meant up north? A. Yes, and west.

Q. You have told us now practically everything that was said between Snedden and yourself on this survey trip, have you? A. Yes, sir.

Q. When did you next have any conversation with him about these matters?

A. Oh, it was some time afterwards.

Q. Do you remember what it was about?

A. About going to live on that homestead.

Q. That was about the homestead?

A. That was after we talked the homestead up, going to get a homestead. The next conversation was pertaining to my business and his, was about going to file on this homestead.

Q. That is the next one?

A. The next one of any importance.

Q. You are sure about that?

A. The next of importance.

Q. That is the next one that you have said anything about here? A. No, sir.

Q. What conversation did you speak of?

A. We spoke about his walking up in town 20, his directing us up there.

Q. I mean after the survey trip was over, your next conversation was your direction to come here to Evanston filing; is that true?

A. I believe that is true; that was the next.

435 Q. How long after this survey had been made was it that you had this conversation with Snedden?

A. In regard to taking up this homestead?

Q. Yes.

A. Well, not so awful long; I couldn't say exactly how long it was.

Q. How long, in your judgment, was it, within a few days?

A. No, it was not a few days; I think it was two or three months.

Q. About at the time that you came down to Evanston to make the filing? A. No, it was before that.

Q. How long before that?

A. Oh, it was probably,—I think it was about fourteen or fifteen hours.

Q. Well, that is pretty close.

A. That is pretty close, at the time I came to make the application?

Q. Yes. A. Yes, sir.

Q. Now, Mr. Gove, when you came down here, did you know what land you were going to enter? A. No, sir.

Q. You didn't know anything about it? A. No, sir.

Q. You were perfectly willing to come down here and enter anything they wanted you to?

A. I came down here to make the entry. I had no notification of what quarter section or anything about it.

Q. And, as a matter of fact, it wouldn't have made any difference to you?

436 A. I don't know as it would.

Q. You would have entered any quarter section that they suggested? A. I guess I would.

Q. And you did, as a matter of fact, enter a part of section 12, I believe in 117, township 19? A. Yes, sir.

Q. What part of 12 did you enter?

A. The south half of the south half.

Q. And, of course, at the time that you entered this homestead you knew the character of the land? A. I did.

Q. You had been over it quite a good many times?

A. Well, I was not over it so many times.

Q. How many times have you been over It since?

A. Frequently.

Q. Well, you felt that you knew the character of the land sufficiently well to enable you to say what sort of land it was?

A. Yes, sir.

Q. And, of course, when you made your entry you signed an affidavit that it was non-mineral, did you not?

A. Yes, sir.

Q. And you knew what you were signing?

A. Yes, sir.

Q. And you read it over, the affidavit that you were signing?

A. It was read over to me.

Q. Well, you were appraised of its contents?

A. Yes, sir.

437 Q. Now, it was the usual form of affidavit, I suppose?

A. I don't know as to that.

Q. Going back for a minute, you, as a matter of fact, swore that this land was non-mineral? A. Yes.

Q. And that was your judgment at the time; you were not falsifying yourself, were you? A. No, sir.

Q. You believed it was non-mineral? A. I did.

Q. And that the affidavit was fully justified?

A. That is was non-mineral?

Q. That it was non-mineral land, from anything you could see? A. Yes, from anything that was visible.

Q. Now, Mr. Gove, this coal crop that you spoke of, I believe you mentioned one on the easterly and one westerly of this land? A. Yes, sir.

Q. The easterly vein is about a mile and a half?

A. A few hundred feet over a mile and a half.

Q. To the cropping? A. To the cropping.

Q. And between this cropping and the east side of that land, the land described in section 12, there were no other coal veins, were there? A. Not visible.

Q. And as far as you know there are no other coal veins, if they are not visible? A. No.

438 Q. You don't know that there were any coal veins in between? A. No, sir.

Q. And as far as your observation and knowledge is concerned, there was no other coal veins lying between this outcrop and the east side of your land, section 12?

A. Any other coal croppings?

[A.] Yes; there was no other coal cropping?

A. There was no coal croppings visible.

Q. Well, that is the only one you know of?

A. That is the only coal cropping I know of.

Q. This coal cropping which lies east a mile and a half, or a few hundred feet over, from your land, is the big, Kemmerer-Cumberland vein, is it not? A. Yes, sir.

Q. It runs about northeasterly and rather southwesterly through the country there for a great many miles?

A. Yes, sir.

Q. Now, going westerly from this vein, there was not any coal cropping on your land, was there, on section 12?

A. No, sir.

Q. But as I understand it, when you go west of the west side line of section 12 a considerable distance, perhaps, you find another vein, do you not?

A. A mile or a little over a mile, just about a mile to the outcropping of another measure of coal?

Q. And that belongs, does it, to this Adaville vein?

A. Yes, sir.

Q. That found on the west is this lignite vein?

A. That is what it is called.

Q. And where that is found, as a matter of fact, it is not
439 commercial coal, is it, on the west, the Adaville?

A. Why, it has not been.

Q. And there are no coal mining developments on that vein, are there? A. Not in any shipping.

Q. Now, did you mention any other cropping except this on the east and this vein on the west? A. Yes, sir.

Q. Where do you intend to suggest that there are some other outcroppings?

A. They were running all along that hogback I told you of that runs southwest and northeast, and on the west of the valley this Adaville vein through the country.

Q. By looking at the map this is the Kemmerer-Cumberland vein indicated by this red line? A. Yes, sir.

Q. And then, as I understand it, over in this country here somewhere is the Adaville vein? A. Yes, sir.

Q. These are the two outcroppings that you are testifying to?

A. Yes, sir.

Q. What do you know now of any other veins or coal measures besides these two big ones in the vicinity of section 12?

A. No, there are none.

Q. Well, subsequently you released or relinquished your homestead? A. Yes, sir.

Q. Do you know where Mr. Root is now?

A. No, sir, I do not.

440 Q. This gentleman of whom you spoke?

A. No, I do not.

Q. And you would not do it, you said, until you went and spoke to Burrell, I believe you said? A. Yes, sir.

Q. Burrell was an employe of the defendant Company, you think, at that time? A. General superintendent.

Q. What time was this, Mr. Gove?

A. That I made this relinquishment?

Q. Yes. A. It was away long in the next year.

Q. What did you say to Burrell; you just asked him if it would be all right to relinquish?

A. I said: "Mr. Burrell, is it satisfactorily if I relinquish that; Mr. Root tells me that you wish me to relinquish that homestead." He said: "It is."

Q. And afterwards you went up to the office and got a check? A. Oh, it was a long time after that.

Q. It was a long time after that?

A. Oh, yes, it was a long time after that.

Q. You didn't get any money at all at the time?

A. No, no, not a cent.

Q. You didn't get any money when you went on the homestead? A. No, sir.

Q. You didn't get any money when you filed on it?

A. No, sir.

Q. But a long time afterwards, you say, you got five hundred dollars? A. Yes, sir.

441 Q. When was that?

A. That was along in 1899 some time, away along toward the latter part of the summer after I had brought that timber down.

Q. This check was cashed by a man there?

A. Yes, sir.

Q. The cashier? A. Yes, sir.

Q. That is not unusual, is it? A. No.

Q. Nothing extraordinary about that? A. No.

Q. Now, you have told us all that happened about that time, have you, about that homestead?

A. Yes, sir, all that I remember.

Q. Well, you know; you don't remember anything else now, do you? A. No, sir.

Q. Now, when you came down to Evanston you saw Mr. Ausherman and he had these papers?

A. They were in his office, in Mr. Ausherman's office. This man, Stevenson, went and had those papers.

Q. Where was Mr. Ausherman's office?

A. I don't remember now where it was.

Q. Do you mean that Mr. Ausherman acted as the attorney in the matter?

A. He acted as the attorney for this man, Stevenson.

Q. Are you not mistaken about that? A. No, sir.

Q. Your recollection about that is perfectly clear?

A. We went into his office, and this man, Stevenson,
442 introduced me to Mr. Ausherman.

Q. You are perfectly clear about that? A. Yes, sir.

Q. Wasn't it Mr. Salmon? A. No, sir.

Q. You are sure it wasn't?

A. Yes, sir; Mr. Ausherman and Hill.

Q. Was it Mr. Hill?

A. No, sir, it was not Mr. Hill; it was Mr. Ausherman.

Q. Now, you never lived upon this land, you say, other than as suggested in your reply to questions asked you by Judge Birch? A. That is all.

Q. Now, you spoke about a Mr. Stevenson, I believe, in arranging the trip or some details of the trip to Evanston when you made this filing? A. Stevenson, yes, sir.

Q. Who was Stevenson?

A. Why, he was simply a man that was around up there. Afterwards he taught school.

Q. He was a school teacher? A. Yes, sir.

Q. And what other business did he have, do you know?

A. He was in the post office business, too, I believe.

Q. Carrying on the business or merely as postmaster.

A. I guess he carried on the post office there.

Q. He was postmaster? A. Yes, sir.

Q. Where is he now?

A. I couldn't tell you that.

443 Q. How long since you have seen him?

A. I don't think I have seen him in Kemmerer since 1899.

Q. He is not around the country as far as you know at the present time? A. I don't think he is.

Q. Have you looked for him?

A. I never had any occasion to.

Q. Mr. Gove, at the time you were testifying concerning when you made this survey, I believe you said that the Cumberland branch of the Short Line had not been built?

A. No, sir.

Q. There was no railroad at all, as a matter of fact, in the vicinity of the lands that are in question here, was there?

A. No, sir.

Q. Now, Mr. Gove, at the time you filed on this homestead, you knew where the outcrop was in a general way east of your land? A. Yes, sir.

Q. There had been no developments done in that country at that time, had there? A. No, sir.

Q. None of the coal prospecting around there along that outcrop; it was not developed to any extent until a later period? A. Afterwards.

Q. When you referred to the Diamond Coal & Coke Company doing some prospecting along the outcrop easterly of your land that was homesteaded, you don't know, as a matter of fact, of your own knowledge whether the Diamond Coal & Coke Company did that work or not, do you?

444 A. It was their men.

Q. Who did it?

A. There was one man by the name of Haddock.

Q. What do you mean by their men, men that at some time had been employed by them?

A. Working for them at that time.

Q. You just simply infer that, do you not; you don't know positively of your own knowledge?

A. No, not positive of my own knowledge, no.

Q. You simply assumed that that was so?

A. That was what they told me.

Redirect Examination

By Mr. Birch:

Q. Is that the Haddock that is here now as a witness?

A. Yes, sir.

(Witness excused.)

445 R. E. Dodson, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name? A. R. E. Dodson.

Q. Where do you live? A. Ely, Nevada.

Q. Did you ever live at Diamondville in this state?

A. Yes, sir.

Q. When did you do this?

A. I lived there in the latter part of 1894 and the fore part of 1895. Then I moved back to Kemmerer. I went back into Utah, and then moved up to Kemmerer in the latter part of 1897, I think, 1896 or 1897; I think it was 1897.

Q. How long did you live there, then, at Kemmerer or Diamondville?

A. Let's see—I lived there until, I think, it was in 1904.

Q. What is your business? A. Contracting.

Q. What was your business when living in this state at Diamondville or Cokeville? A. Contracting.

Q. Are you acquainted with Thoms Snedden?

A. I have know him, I think, since—I think I first met Snedden in the fall of 1894 or 1895.

446 Q. Where? A. At Diamondville.

Q. What was he doing there?

A. He first came there [at] pit boss, I believe.

Q. For what company?

A. For the Diamond Coal & Coke Company.

Q. The Diamond Coal & Coke Company or their predecessor?

A. I think it was always known as the Diamond Coal & Coke Company, is my recollection of it, ever since they opened it.

Q. What was he doing afterwards, if you know?

A. Well, I don't know what he was doing all the time, because I was gone part of the time from there, he first went there, my recollection is that he went there as pit boss under Forrester and Foote, Forrester had come out there, and Foote was acting rather as superintendent when Forrester was gone.

Q. Then, what was Snedden doing afterwards, after he was pit boss?

A. Well, he finally worked up to under Burrell, I think, became superintendent of the mines.

Q. What was he during 1898?

A. Well, I think he was superintendent there then, that is, he and Mr. Burrell.

Mr. Kelley: We object unless the witnss knows, and we ask your Honor that you instruct the witness not to answer except of his own knowledge.

The Master: Answer what you know of your own knowledge.

Q. Well, you may state now what your knowledge was.

447 A. Well, after the Company changed hands, he was in charge there when Mr. Burrell was gone he was running the mines at the change of hands.

Q. Did you ever do any work for the Company?

A. I did for a number of years.

Q. What was the character of work you did?

A. Contracting and building houses and doing other work for the Company.

Q. Now, you speak of building houses; when did you build houses or any number of them for the Company?

Mr. Evans: We object to this. We can infer what the line of testimony will be. We object to it as incompetent, immaterial and irrelevant, not tending to prove any of the issues in this case or in any wise connected with the defendant in this

action, and as being grossly impertinent and scandalous under the issues in this case, and I presume you will consent that this objection may go to all of this testimony of those homestead entries?

Mr. Burke: Oh, certainly.

A. The first work I did for them in 1898, I built some houses for them—the first contract I got was from Mr. Snedden to build some houses out on some homesteads.

Q. Did you build any in section 18, township 20 north, range 116, being the section marked on this map in red outlines as 18?

A. Well, now, just as to a section, I couldn't say, I know that Mr. Snedden, some place in reference to the location of the Glencoe here, and these mines I put a cabin up there
448 for Mr. Snedden, up near that road some place; I couldn't say just where it was.

Q. That was a place near the northeast corner of section 18?

A. I am not positive as to the sections that these houses were to be put on, because Mr. Amoss was hauling the lumber, and all I had to do was to drive out where this lumber was and put up these houses.

Q. How many houses did you put up on that section, if you remember?

Mr. Kelley: Objected to because the witness has not testified that he put up any houses on the section.

Q. Well, on the section that you have in mind, out toward Glencoe.

A. There was two or three sections that I put up four houses. The way I understood from Mr. Snedden, there would be four houses on a section. In taking this contract he asked me to give him a figure on some houses out there and I said: "Where are they; where do I have to go to get water?" And he drives me out to a place and says that the house was for him, and there would be four houses on that section. Now, said I; "Mr. Snedden, I would like to build these houses as close as I could, that is, at least two of them, so as to not have to move camp." On account of moving camp, you know, it would make it much handier for me to build two houses from one camp, and then move and build four.

Q. Did Mr. Snedden require you to build them, or did he tell you that somebody else would?

A. He showed me one quarter section that he was tak-
449 ing up, and he told me that Mr. Amoss had helped to do that surveying and would know where these houses had to be built, and he would put this lumber there and show me where to build the house.

Q. Did Mr. Amoss indicate the place where you were to build by placing the lumber?

A. He would go out with the lumber and tell me about where I would find the lumber, and when I would move from one place, I would drive over there and find a pile of lumber and right close to it I would build the house.

Q. What is Mr. Amoss's name? A. Charles Amoss.

Q. For whom was he working?

A. He was hauling this lumber out there. Mr. Snedden told me he would haul the lumber, and I supposed it was for the Company, I don't know.

Mr. Evans: We move to strike out what the witness supposes, for the reason that it is clearly shown that it is not within the knowledge of the witness.

Q. You say you built four of them on some sections and you built one on Snedden's homestead?

A. That is the way I understood. I didn't pay no attention as to these sections and the numbers; that was not in my line of business.

Q. Where did you build any more than that first lot of four?

A. Well, we moved about a mile from there and built some more houses.

Q. In what direction?

A. In a southerly direction.

450 Q. How many did you build in that group?

A. Now, I can't say how many I built on that one; I think there was two or three places where I built four houses in close together, they was supposed to be on a section of ground.

Q. Some places you built how many?

A. Some places I built only two.

Q. So that, at the next place you built a group of either four or two? A. Yes, sir.

Q. That was about a mile south, as I understand it, of the first one?

A. In a southerly direction. There was some built west of there, too. I don't know just what section they were on or anything about it.

Q. At your next place how many did you build there?

A. I couldn't say whether we went south for the next building or whether we went west, because I paid no attention, but just gliding across the sage brush to the pile of lumber, and where I found a pile of lumber I built a house.

Q. How many did you build at the third place?

A. It was either two or four in there close, within a radius there; I couldn't say just how far apart they were.

Q. Then, did you build at a fourth place?

A. I think it was either two or three places that I built within a radius, I suppose as Mr. Snedden and me talked of being on a section of ground, building four houses at one place, and one place or so I only built two, and I built some twelve or fourteen altogether.

Q. There were four places, were there, at which you built; I mean four groups?

451 A. That is my recollection, there was four groups.

Q. What was the character of these houses as to being similar?

A. I think they were all alike. unless it was the one supposed to be for Mr. Amoss; that is the house that I built, and Amoss said that was his house; I don't think there was as many rooms in Amoss's house as there was in these houses. They were shed roofs, board and battened houses.

Q. Any floors? A. With a floor in.

Q. Door?

A. Doors and windows, and lined with brown, building paper, just tacked on the walls.

Q. How many windows?

A. I think there was a window for each room, or a half window; I think we only used half windows, and made them to slide.

Q. And you built them with two rooms?

A. I think there was three or four rooms in some of them.

Q. What was the size of them?

A. I think the whole building on the outside was about 18x24, or somewhere near that. That is my recollection now; it might have been a little wider than that.

Q. How long were you at that work?

A. I think I was out there about twenty or twenty-one days.

Q. Who paid you for them?

A. I went into the office and got my pay, into the Diamond Coal & Coke Company office. That was the old office, before they built their new building.

Q. How were you paid?

A. I don't know whether I drawed cash or whether I

452 had a check; I couldn't say for certain whether they paid me in cash or a check. It was customary there when you drew money or a check—

Q. Do you remember who gave it to you, the cash or check?

A. My recollection is it was Mr. Roberts; I think he was acting as cashier at the time.

Q. Cashier for what?

A. For the Diamond Coal & Coke Company.

Q. Did you make out a bill for your work?

A. Well, I don't recollect whether I made out a bill, or whether Mr. Snedden went in and told him the amount.

Q. How much was it, so much a house?

A. Yes, sir, I was getting either thirty or thirty-five dollars, I forget which now, for the houses, apiece.

Q. Did you furnish any of the material?

A. I didn't furnish anything.

Q. Nails or anything of that kind? A. Not a thing.

Q. They were all brought there? A. It was brought.

Q. By whom?

A. By Amoss or those teamsters. I think Amoss drove the team most of the time.

Q. Were there any other houses built there that summer of that character and style, near those that you built?

A. There was some houses when we first went out. My recollection was Mr. Snedden said that there would be about sixteen or something near that; anyway, there was some houses to be put up after I got through with the first bunch, but I never went back to build them; somebody else put them, I don't know who it was.

453 Q. Now, what was your conversation with Mr. Snedden in regard to who was doing the work, if anything?

A. When he first talked to me about this contract and wanted to know what I could put up a certain class of houses for, I said it would depend on how many of those houses. A man can just about put up one house—he would have to fix up a camp and take care of the stock and so on and it would take him pretty near as long as it would to put up the house, and he said there was a number of the boys helping to build these houses, there was a number of houses to go up, and there was a number of the boys helping, and I remember he said these houses are for the boys, they are not for us, but we are helping them out in building these houses.

Q. Who did he say would pay for them?

A. He said: "We will pay for the work."

Cross-Examination

By Mr. Evans:

Q. Where are you staying now? A. Ely, Nevada.

Q. Where were you when you were subpoenaed in this case?

A. I was at Ely, Nevada.

Q. How long ago?

A. I think it was either Thursday or Friday evening that he came down and subpoenaed me.

Q. Who had talked with you regarding this case before that time?

A. Nobody; I didn't know anything about what I was being brought here for or nothing. They just came in there.

I have got the subpoaene in my pocket that a man came
454 and gave me. I asked what they would do with me if I didn't come, and he said they would come and get me and lock me up, so I told him I guessed I had better come, then.

Q. How long have you been in Ely?

A. A year ago last June.

Q. Where had you been between the time that you left the Kemmerer-Diamondville country in 1904 until you went to Ely?

A. I done some work in Montpelier, and some in Cokesville, and then moved to Victory, and was there a little over two years.

Q. General contracting during that time?

A. Contracting, yes, sir.

Q. You first knew Mr. Snedden there about Diamondville in the fall of 1894, you think.

A. 1894 or 1895; I am not sure about those dates, but it was when they was first opening up the mine. It was when it was being opened by Walker and Fields, and that outfit, these Minneapolis people.

Q. You said he was a pit boss then?

A. He was a pit boss then.

Q. What is a pit boss; what are his duties?

A. I can not tell you his duties; he has charge of the working of the mine inside.

Q. He is not an executive officer in the business, generally?

A. No.

Q. Simply looking after the underground mining.

A. Simply the underground mining; as I understand, he is the underground man.

455 Q. How long did Snedden continue to be pit boss?

A. Well, he was pit boss there as long as I stayed there at that time. I went there and built their tipple for the old company and done other work for the company and then I left there. I went there in September, and left some time, I think, the next April, the first time I went in there to stay to do any work.

Q. You were away until 1896 or 1897, you said, I believe, and then went back?

A. I think it was either the fall of 1896 or 1897 that I came to Kemmerer and done some work for Mr. Quailey.

Q. In the winter of 1897-98, what was Mr. Snedden's position there?

A. I came down to Kemmerer, and I think Snedden sent for me to do some work. I think at the time I took this work I was living at Kemmerer. I came down and took this work; I had my team and just moved out there on the flat. That is my recollection now. Shortly after doing this work I moved down to Diamondville; I had got some other work from him there; I worked some for him and had been all summer; they had not been doing much.

Q. When did you take this work?

A. I think it was in September of 1898; It might have been the last of August. It was very warm yet.

Q. You think it was along about the latter part of August or September, 1898? A. Yes, sir.

Q. Can you state, or do you mean to be understood as stating positively Mr. Snedden's position with the Company along in the winter of 1897-98 or the spring of 1898?

456 A. Well, I know from that time on that Mr. Snedden sent for me one time and had me come down there and repair some cars.

Q. Before you had this house work? A. Afterwards.

Q. Yes, but I am carrying you back before August or September, 1898, the time that you thought it was when you went down about this house work on the homesteads, the spring before that.

A. In the spring before that there was a war there, and Mr. Snedden was out from the Company.

Q. That is exactly what I was geting at.

A. They had had a little racket, and of course, we hear these things. Lots of this I dont know; it was hearsay.

Q. You dont mean to be understood as saying that Mr. Snedden was superintendent or connected at all with the Diamond Coal & Coke Company along in the spring of 1898, do you?

A. Well, it was during that summer; they had a strike there; there was a man killed and they had a little trouble, and Snedden dropped out over that some way or the other.

Q. Prior to the time that he got out, up to that time Mr. Snedden never was superintendent of the company at that time; he was simply pit boss, wasn't he?

A. I dont think so. I think prior to that he was pit boss. Burrell came in there, and when Burrell would be gone he would have charge.

Q. Prior to the summer of 1898, along through that spring and winter there was a man named Sharp who was superintendent there, wasn't there?

A. Oh, Sharp was there for a while, and Gridley was there before Sharp, I think.

457 Q. Now, until the time Burrell came there Snedden never held the position or acted as superintendent to your knowledge, did he?

A. Not to my knowledge; he was always pit boss.

Q. Mr. Burrell became superintendent there about July, 1898, didn't he?

A. Well, it was at the time that the company that owns it now bought it.

Q. Yes, there was a change of management about then.

A. Yes.

Q. And then Burrell was superintendent for a year or so?

A. He was superintendent of it, I think, until Mr. Whyte came.

Q. That is, till the summer of 1899.

A. Yes, sir.

Q. So that Mr. Snedden, from your recollection, never was superintendent of the Diamond Coal & Coke Company prior to the summer of 1899, the time that Mr. Whyte came there?

A. Well, I don't know that he was actually superintendent. When Burrell was gone Snedden had charge.

Q. And Burrell came there about July, 1898, did he not?

A. It was some time that summer, before I went out to build these houses.

Q. And there was a period of a few months there prior to that time that Snedden was out entirely with the Company?

A. He got out entirely.

Q. Now, when you got your money for these houses that you constructed out there, you simply went to the office to get it?

A. I think Mr. Snedden, I went out and told him I wanted to draw a little money at one time before I got through.

458 I came in and wanted to pay my men that was leaving me some money, and I went up and Mr. Snedden went over with me, I think, and I got some money, thirty or forty dollars at that time.

Q. You don't know but what this money was being paid to you on Mr. Snedden's account, do you, or on account of some of the men who were occupying the houses?

A. When Snedden gave me this contract: "Remember these houses are being built for these men, and we are only helping them out."

Q. For the Company?

A. He said: "Remember we are doing this work for these men, and we are helping them out." He named over the men. I couldn't tell you who all the houses were for that we built. I didn't give a damn; I was looking after the contract, as far as sections were concerned. Tom showed me where to build this

one; he said "this one is mine" and as far as going and counting by corner stones or thinking of ever being on the witness stand about this thing, I never thought of anything of the kind. I wasn't counting on nothing of that kind; I went out there and stuck up a little shack to get that little, old thirty-five as quick as I could.

Q. You know nothing about the claims to the land?

A. No.

Q. You don't know whether the four houses were on one section or each on a separate section?

A. They told me there would be four houses on a section and I said at the time "Let me build each two houses together," because you know we were on this ground and I wanted to build them as quick as I could so as to save me moving camp every time.

459 Q. The only one that you knew of for whom you understood you were building a house, except Mr. Snedden, was Mr. Amoss?

A. I think Mr. Bob Snedden, or two Snedden boys walked out there one time and one of the other boys; I knew all of them.

Q. They were two of the boys that he spoke of having you build houses for?

A. Yes; they came out while I was building and was just rambling around the ground on a Sunday.

Q. About getting your money at the office, you know nothing about whose account this money was drawn on, as to whether Snedden was getting the money from the Company at the time, or these boys, or what it was?

A. I just went in there and Snedden told them to give me so much money. I didn't know whose money it was and I didn't care. It was the money I was after; it was due me and that is all I knew. I did not question those boys thinking they were going to tell me something; it was not my business.

Q. Isn't it your experience with the office, that the superintendents will go and get the money for you at the Company office?

Mr. Burke: That is objected to by complainant as immaterial.

A. I done lots of work for that Company. Mr. Snedden would frequently be up and see the work and how it was progressing, and I would tell [me] I wanted some money and he would give me a little note to pay Dodson so much money, to go on up there and tell them to make me out a voucher. I done lots of work that way for that Company. Mr. Whyte can tell you I handled lots of their money.

460 Q. In your operations afterwards there did you have a partner or were you operating alone?

A. In the contracting business, outside of the timber, I was always alone.

Q. In the timber business did you have a partner afterwards? A. Charley Amoss afterwards.

Q. This same Amoss that you referred to?

A. Yes sir.

Q. Where is he now?

A. I understand he is in Canada. I haven't heard from him in two years.

Q. What was the last business you did with the Diamond Coal & Coke Company? A. It was running down some timber.

Q. The last business was in connection with timber?

A. I think that was last.

Q. Did you have a misunderstanding about your settlement?

Mr. Burke: Objected to as immaterial.

A. Yes sir.

Q. And you sued the Company? A. Yes, sir.

Q. And were defeated? A. Yes, sir.

Q. What was the amount you claimed in your suit?

A. Something over two thousand dollars; twenty-two hundred or something, that they claimed they paid to the Government.

Q. You still think they owe you that? A. Yes, sir.

461 Redirect Examination

By Mr. Burke:

Q. Does that have anything to do—the fact that you had some litigation over that timber—have anything to do with your testimony here?

A. Not a bit; I will tell you just as straight as I know it.

Q. Did Snedden, in your conversation, tell you the names of the different homesteaders whose homesteads you were building?

A. He went there and I couldn't say that he enumerated every one. I know he told me several. He told me of Mr. Penman and himself and Amoss.

Q. More than one Amoss? A. Charles Amoss.

Q. Was there any other Amoss?

A. That was the only one I ever knew, and I think he enumerated Mr. Snedden, another Mr. Snedden, and I couldn't say who else he did enumerate.

Q. Was there a William H. Brown?

A. No, I didn't build the house for Brown nor either one of the Aitkin boys.

Q. Who built Brown's?

A. I don't know; I think they built it themselves.

Q. Was there a James Thompson?

A. I didn't build his. I don't think; I might have done.
Q. Was there a Herbert Crofts?
A. Well, there is so many of those fellows that I never knowed and don't know their names, so I couldn't tell.
Q. You didn't build the Aitkin houses?
A. I didn't build the Aitkin boys nor Brown, because when that came up, Snedden told me they were going to build
462 their own. [that came up, Snedden told me they were going to build their own.]
Q. Was there one for William Snedden?
A. I am not sure whether it was Bill or Bob. I know there was another Snedden, and it might have been both who had their houses built.
Q. Was there a James Wanless? A. Yes, sir.
Q. Was there a Charles Amoss?
A. Yes. Amoss hauled the stuff out.
Q. And Thomas Kirby?
A. Yes, old man Kirby, I think it was. He and Snedden walked out to see me one Sunday.
Q. And was there a William Fearn?
A. Well, not being so intimately acquainted with them as I was with these other boys, I couldn't remember whether there was or not.
Q. Was there a William Stevenson?
A. Stevenson, the postmaster, yes, I built one for him.
Q. And Charles Gove? A. Yes, Charley Gove.
Q. And George Haddock?
A. I am not sure whether I built Haddock's house or not.
Q. Was there a James McDonald?
A. There was a McDonald; one of the McDonald's.

Recross Examination

By Mr. Evans:
Q. Where was this suit tried with the Diamond Company?
A. Right in this town.
463 Q. It was over houses that were not over there, was it?
A. It was over the timber. If there was any hard feeling over it, it was not on my side. I talked to these fellows whether they talked to me again or not. I am a little like Tom; if I am licked I try to be a licked man and let it go at that. It didn't hurt me a bit.

(Witness excused.)

464 William H. Brown, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:
Q. State your name. A. William H. Brown.

Q. Where do you live? A. Lafayette, Colorado.
Q. What is your business? A. Mining.
Q. Did you ever live in Wyoming? A. Yes, sir.
Q. Where?
A. I lived in several towns, Alma, Diamondville and Kemmerer.
Q. When did you live at Diamondville and Kemmerer?
A. I first went to Diamondville in 1895 as near as I can remember.
Q. How long did you remain there?
A. About four years or five.
Q. That was at Diamondville or Kemmerer?
A. Diamondville and Kemmerer together.
Q. What were you doing when living at Diamondville?
A. Mining.
Q. For whom?
A. The Diamond Coal & Coke Company and the Kemmerer Coal Company.
Q. Are you acquainted with Thomas Snedden?
465 A. Yes, sir.
Q. During all the time that you were living there at Diamondville and at Kemmerer did you know him?
A. Yes, sir.
Q. What was his business?
A. He was mine foreman when I first went there.
Q. And what afterwards?
A. Well, that is all he ever was under that company that was in power at that time.
Q. When was there a change, as you remember, in the Company, in the Diamond Coal & Coke Company?
A. As near as I can remember it was in 1897.
Q. What was he under the second company then, that was taking the Diamond Coal & Coke Company?
A. As near as I can remember he was mine foreman for a little while.
Q. Then what was he? A. Mine superintendent.
Q. Do you know Mr. Burrell? A. Yes, sir.
Q. What was he?
A. Mine foreman when he first came there or mine superintendent, I mean.
Q. How long was he there?
A. I can't tell exactly; perhaps three or four months.
Q. In what year? A. I think in 1897.
Q. It was after Mr. Burrell left that Mr. Snedden was superintendent, or was it during the time Mr. Burrell was there and afterwards?

466 A. Afterwards.

Q. Did you ever enter a homestead while you were living at Diamondville? A. Yes, sir.

Mr. Evans: We make the same objection to all of this homestead evidence.

Mr. Burke: Very well.

Q. Upon what land, do you remember?

A. No, I couldn't tell you exactly by memory.

Q. Have you got a memorandum or can you pick it out on the map here? A. Yes, sir.

Q. Will you do so and give me the description of it?

A. The south half of the northeast quarter, the southeast quarter of the northwest quarter, the northeast quarter of the southwest quarter of section 6, township 19 north, range 116 west.

Q. How came you to enter a homestead there?

A. Why, there was lots of others entering homesteads there at the time.

Q. Some of your relatives? A. Yes, sir.

Q. Who were your relatives, the Aitkins? A. Yes, sir.

Q. Thompson was your relative?

A. Thompson and Lees.

Q. What was the proposition in regard to the entering
467 of homesteads?

A. Well, Mr. Thompson and Lees asked me if I would file on a homestead and I told them I didn't know.

Mr. Evans: We make the same objection to this evidence, and further, that there is no connection shown with the Diamond Coal & Coke Company.

Mr. Burke: We will connect it later on.

Q. That was before you filed, was it?

A. Yes sir.

Q. And what followed that request or suggestion by them?

A. Well, they said they were going to file on some homesteads, and that we would be able—

Mr. Kelley: We object to what Thompson and Lees said.

Mr. Burke: Well, let it go in, and I will connect it or consent that it may be stricken out.

Mr. Kelley: Do you want him to tell what Thompson and Lees said?

Mr. Burke: I do, with my connection, yes.

Mr. Evans: You are going to prove that they were authorized to make all these statements?

468 Mr. Burke: Yes, I am going to prove that they were acting in the matter of making homestead entries for the Diamond Coal & Coke Company.

Mr. Evans: I guess the objection is broad enough to cover that.

Q. Go ahead.

A. I told them that I wouldn't take up a homestead unless I could take it up and still reserve my homestead right. He told me we would be able to sell these homesteads in a matter of about fourteen months.

Q. To whom?

A. He told me we would relinquish them back to the United States government and still retain our homestead rights.

Q. What were you to get for it, if anything?

A. He said he had a contract with Mr. Burrell that we were supposed to get nine dollars an acre.

Q. Did he show you the contract?

A. He read the contract to me.

Q. By whom was that signed?

A. I didn't see it; he never let me have it in my possession.

Q. Did he read to you who signed it?

A. Yes; he said it was signed by Mr. Burrell.

Q. What was Mr. Burrell, then, in connection with the Diamond Coal & Coke Company? A. He was general manager.

Q. Now, what did you do in relation to the matter after that conversation?

A. I came over here and filed on a homestead.

469 Q. Who came with you?

A. Mr. Thompson and Mr. Lees and two Mr. Aitkins and Mrs. Aitkins.

Q. Did they file at the same time?

A. Yes; four of them filed on homesteads.

Q. In what section; this same section with you?

A. No, sir; Mr. Thompson and I were the only two, if I remember right, in section 6.

Q. How did they file, do you know? A. No, sir.

Q. Who paid the expenses?

A. I couldn't tell you that.

Q. Did you? A. No, sir.

Q. Who paid the expenses of the team, the hotel bill and your meals while you were here?

A. Mr. Thompson had his own team.

Q. Where did you make out the papers for filing?

A. In the Land Office.

Q. Do you remember what officers were there at the time?
A. No, sir, I don't; I don't know who the man was.
Q. How long did you hold that homestead?
A. Well, I couldn't say positively, because I don't ever recollect ever relinquishing that homestead yet.
Q. Did you ever get paid for the relinquishment or for the giving of it up? A. Yes, in a way I did.
Q. Well, what way?
A. Mr. Snedden paid off some debts for me with it.
Q. How much did it amount to, that he paid you altogether?
470 A. Five hundred dollars.
Q. What was he when he paid you off; what was his relation to the Diamond Coal & Coke Company?
A. Superintendent.
Q. Was anybody else paid off at that time? A. Yes.
Q. Who?

Mr. Evans: Of your own knowledge?

A. Yes, of my own knowledge.
Q. Who? A. Charles Aitkin.
Q. How much was he paid?
A. Five hundred dollars.
Q. Any one else? A. Yes, sir, Thomas Aitkin.
Q. How much was he paid? A. Five hundred dollars.
Q. Any one else? A. Yes, sir.
Q. Who else? A. James Thompson.
[—] How much was he paid?
A. Five hundred dollars.
Q. Was there any dispute as to the amount that was to be paid? A. Yes, sir.
Q. Who disputed the amount and with whom?
A. Well, I disputed it; we all disputed the amount.
471 Q. What did you [fdisoute] it on; what was the reason?
A. Because it was not as much as Lees and Thompson said the contract called for.
Q. Did Mr. Snedden—what did he say about it?
A. Mr. Snedden didn't say anything; he said we would have to take our time about it.
Q. When was that, afterwards?
A. Not afterwards; they had a conversation with Snedden before that.
Q. What was that?
A. I went and asked Snedden if he wouldn't pay me the money that was coming to me and he said no.
Q. Why not?

A. He said the contract that Lees and Thompson had wasn't any good, and that nine dollars an acre was too damn much money.

Q. Was there anything said during the conversation with Snedden at that time, or any other time, in relation to taking up this land with scrip after getting your releases?

A. Not between Mr. Snedden and I, no, sir.

Q. Who did you have such a conversation with, if any one?

A. Thompson and Lees.

Q. Was that a part of this written contract?

A. I couldn't say; I never had the written contract personally in my possession.

Q. I mean what he read to you? A. Yes, sir.

Q. That was in there, was it? A. Yes, sir.

Q. What contract was Mr. Snedden referring to when
472 he was talking to you, saying that it was too much money? A. I don't know.

Q. Did he speak of a contract?

A. He said that the contract that Thompson and Lees had wasn't no good.

Q. Had you referred to one?

A. I referred to the contract of Thompson and Lees.

Q. That you had heard read? A. Yes, sir.

Q. And that was his response at that time, was it?

A. Yes, sir.

Q. Was there a cabin on your homestead? A. Yes, sir.

Q. Who built it? A. I did.

Q. For whom, if any one?

A. For James Thompson.

Q. With James Thompson? A. For James Thompson.

Q. Were you paid for it? A. Yes, sir.

Q. By whom? A. James Thompson.

Q. Do you know anything about the cabins on the Aitkins' homesteads? A. Yes, sir.

Q. Who built those? A. Thompson and I.

Q. Who paid for them? A. Thompson.

473 Q. Who furnished the lumber?

A. I couldn't say who furnished the lumber.

Q. What kind of cabins were they?

A. Just [kumber] cabins.

Q. Did you see any other cabins of similar style there on any of those homestead entries that you did not build?

A. No, sir, not of that shape.

Q. How much did you get for building them?

A. Eighteen dollars.

Q. What kind of cabins were they? A. About 12x14.

Q. Board roof? A. Board roof, yes, sir.

Q. Battened? A. Yes, sir.
Q. Any windows or doors?
A. Two windows and one door.
Q. What became of those cabins? A. I don't know.
Q. Did you ever take them away? A. No, sir.
Q. Do you know who hauled them away?
A. No, I don't know personally who hauled them away, but they was hauled away by the Company teams.
Q. You mean the Diamond Coal & Coke Company teams?
A. Yes, sir.
Q. Do you know where James Thompson is now?
A. No, sir, not personally.

474 Cross-Examination

By Mr. Evans:

Q. Mr. Brown, when did you first go to Diamondville or that country? A. In 1895 as near as I can remember.
Q. How long were you there?
A. About six years; between five and six years.
Q. That would be along about until 1900 or 1901?
A. Yes, sir.
Q. What have you been doing since then? A. Mining.
Q. Where? A. Lafayette, Colorado.
Q. Have you been in one place all of those years?
A. I have been six years and three months there.
Q. What kind of mining? A. Coal mining.
Q. Have you been employed steadily since you have been there? A. Yes, sir.
Q. Are you mining there now? A. Yes, sir.
Q. Who subpoenaed you to come as a witness in this case?
A. The United States Government.
Q. Well, did the Government, itself, come and subpoenae you? A. No, sir, Mr. Wallis subpoenaed me.
Q. Who had talked with you before you were subpoenaed?
A. Not any one.
Q. Did Mr. Wallis talk with you at the time he subpoenaed you about what you knew about this case?

475 A. Yes, sir.

Q. After he finished talking with you he served a subpoenae on you?
A. No, sir, he subpoenaed me.
Q. Did he tell you how he came to find you?
A. He came to the house and said that he had been told that I took up a homestead in Wyoming and that I knew something about it, and ask me if I did, and I told him yes.
Q. Now, from the first years when you went there to Diamondville, 1894 and 1895, did you work quite steadily

for the Diamondville Company or were you working for the other company?

A. It was not this present company when I first went there.

Q. It was the same corporation, but a different management? A. Yes, sir, the same name.

Q. Did you work for that company steadily from 1894 or 1895 on during the years that you were there?

A. Pretty steadily, yes, sir.

Q. Now, when you first went there, Mr. Snedden was there? A. Yes, sir.

Q. He was what you call a pit boss, wasn't he?

A. Mine foreman.

Q. The duties of pit boss are confined, are they not, to the mining, the underground work? A. Yes, sir.

Q. He does not look after the general business for the Company? A. No, sir.

Q. How long was Mr. Snedden mine foreman?

A. I think he was mine foreman until about the latter part of 1896; then he got let out.

476 Q. For how long?

A. He got out for good with that company. They put Mr. Hogan in his place.

Q. That is, let out for good with that management, you mean? A. Yes, sir.

Q. Then, you think that was the latter part of 1896?

A. I think so. Probably—no, it would not be later than 1896.

Q. Are you not mistaken more than a year in your date on that, Mr. Brown? A. Well, it might be.

Q. Wasn't it in January, 1898?

A. Well, it was January, 1897.

Q. Wasn't it in January, 1898 that Snedden served his connection with the old management at that time?

A. No, sir.

Q. Do you recall a strike there along about that time?

A. Yes, sir.

Q. When was it from the time of the strike that Snedden was out with the Company?

A. The following spring along about—well, I couldn't tell, somewhere between the first of the year and the first of July.

Q. The strike was? A. Yes, sir.

Q. Mr. Snedden was about six months, wasn't he, about from January to July?

A. To the best of my knowledge.

Q. He was out during this strike was on?

477 A. Yes, sir.

Q. If that strike was in the spring of 1898, you are wrong in your dates, aren't you?

A. That strike was not in the spring of 1898, not the strike I refer to, because it was under the old company.

Q. Under the old management? A. Yes, sir.

Q. If the new management went in there in July, 1898?

A. The new management had a strike in 1898.

Q. When did you make your filing on this ground, what year? A. 1898.

Q. You made your filing in 1898? A. Yes, sir.

Q. Now, fixing it from the time that you filed, do you say it was the year previous that the old management had this strike there? A. To the best of my knowledge.

Q. Are you positive of that?

A. No, sir; I cant remember the date.

Q. Will you swear that the strike under the old management, during which Snedden was out of the employ of the company, was not in the spring of 1898?

A. No, sir, I can not.

Q. You can not state positively. In order to get these dates, how long after the strike that you have been talking about under the old management, was this strike that occurred there under the new management, that is, the present management?

A. Probably a year and a half or two years.

Q. Then, if the strike under the new management was in November, 1899, the other one under the old management was in the spring of 1898, wasn't it, just about a year and a

478 half between them? A. Yes, it was.

Q. Anyway, Mr. Brown, Mr. Snedden was nothing but the pit boss there until the time he left the employ of the old company, the time of this trouble? A. Yes, sir.

Q. Up to that time he was nothing but the pit boss?

A. That is all.

Q. And when he came back in the employ of the new company, Mr. Burrell was the superintendent then for a year or so, wasn't he?

A. I couldn't state positively how long; he was there some time, because he built the town there and the store; he was there some time.

Q. Well, Mr. Burrell—from the time Snedden came back Mr. Burrell was superintendent until Mr. Whyte here took charge, is that your recollection?

A. That is not my recollection.

Q. Who succeeded Mr. Burrell? A. Mr. Whyte.

Q. That is what I say.

A. That is as far as I know.

Q. You misunderstood my question. From the time that Mr. Snedden came back into the employ of the Company, after he had this trouble and was out a few months—from that time Mr. Burrell was superintendent until Mr. Whyte came in there? A. And general manager.

Q. And then Mr. Snedden, under Mr. Whyte, was made superintendent. That is correct, is it?

479 A. Yes, that is my recollection.

Q. Now, what time of the year did you make this homestead entry? A. July 5th.

Q. How do you have that date so clear in your mind?

A. I get it looking over the maps.

Q. When? A. Since I came to Evanston.

Q. You can answer it on the data you got since you came here, and not upon your independent recollection of it?

A. No, sir, I can not; I can remember by myself all I remember.

Q. Did you know the date when you came here?

A. Yes, sir.

Q. You say referring to the map you could state the date?

A. Yes, sir.

Q. You went all over this matter of this homestead and the subdivisions and everything with the attorneys for the Government last night, did you not?

A. Over the map?

Q. Yes. A. No, sir, not all of it.

Q. Well, you looked at the map? A. Yes, I did.

Q. And saw your subdivisions? A. Yes, sir.

Q. And saw the date of your entry?

A. No, sir, I knew the date of my entry, because when I came over here to make the entry I travelled over the country on the Fourth of July.

Q. Where did you get that memorandum that you read from for your subdivisions, your section?

480 A. I got it from that gentleman over there.

Q. Mr. Burke? A. Yes, sir.

Mr. Burke: He referred to Mr. Alton.

Q. It was from this memorandum, that you are stating the section and the subdivisions of the section; you can not remember that without your memorandum, can you?

A. No, sir, I couldn't remember the section.

Q. Did you know it upon the ground when you made your entry, the corners?

A. Yes, I had been on the ground before I made the entry.

Q. And did you know the subdivisions, where they lay?

A. I did at that time, but I couldn't remember it afterwards.
Q. That was true at that time? A. Yes, sir.
Q. Who selected the piece that you should file on?
A. Mr. Thompson and Lees.
Q. You knew when you came over to Evanston what subdivisions, what portions of the section you were going to file on?
A. They showed me them on a slip, and we went over the ground on the way coming over here before we filed.
Q. You went over the ground and looked it all over?
A. Yes sir.
Q. As to its character, etc? A. Yes, sir.
Q. They told you you were to relinquish in fourteen months?
A. Mr. Lees and Thompson, yes, to the United States
481 Government.
Q. Do you swear to that positively? A. Yes, sir.
Q. Don't you know that the fourteen months period would be the period after which you could get a complete title to it under the homestead law?
A. Yes, sir; they said that we would relinquish it back to the United States Government and that Mr. Burrell would buy it with Soldiers' Scrip.
Q. You have not answered my question. Didn't you know at that time, and don't you know now, that after fourteen months residence you could get an absolute title under your homestead entry under the law? A. Yes, if I paid for it.
Q. Didn't you think it strange that he mentioned fourteen months as the time that you should relinquish?
A. No, sir.
Q. Didn't you ask any question about it?
A. No, sir, because you can buy homesteads after that length of time any time.
Q. Now, when did Thompson and Lees show you this contract you were talking about?
A. Lees never showed me the contract.
Q. Thompson or Lees? A. Thompson.
Q. When did he show it to you?
A. He showed it to me several times, after he—
Q. When did he first show it to you?
A. I can't remember exactly.
Q. You spoke about Mr. Burrell being the manager of
482 the Company at the time he showed you the contract; when was that?
A. That was may be two years after we filed on the land. Mr. Thompson and Lees had had a quarrel amongsf themselves and had split up, and part of the boys went with Thompson and the other part went with Lees.
Q. You never saw this alleged Burrel contract until some two or three years after this?

A. I saw what Mr. Thompson said was a copy of the contract; that is, I didn't personally handle it, but he read it to me.

Q. At the time you made the entry or before?

A. After the entry was made.

Q. How long after? A. Probably two years.

Q. That is what I say, that you never saw this copy of this contract until some two or three years after you made your homestead filing? A. No, sir, I did not.

Q. Did you know anything about it?

A. Not any more than what they said, that they had a contract. I didn't see it.

Q. Now, do you mean to state positively that Mr. Burrell was manager of that Company at any time prior to the time that you filed on this land?

A. Mr. Thompson said he was, that is all I know about it. I don't know what position he held with the Company.

Q. You are basing this on the statement that Thompson made to you as to Burrell being the manager?

A. Yes, sir. Burrell was there managing the works at the time, in the same position that Mr. Whyte is managing
483 them now.

Q. Will you make that statement posifively, that Mr. Burrell was there managing the work of the Diamond Company at any time prior to the time that you filed on this land?

A. Yes sir.

Q. You make that positively? A. Yes, sir.

Q. You came to Evanston and filed on this land on the 4th of July? A. No, sir.

Q. Well, about the 4th? A. No, sir.

Q. You came over on the 4th? A. Yes, sir.

Q. Where did you go in Evanston to get your filing papers?

A. I went to the Land Office.

Q. And there you got the application, the blank filing papers?

A. Mr. Thompson and Lees got the application blank and filing papers.

Q. It was filled out when it was presented to you?

A. No, sir; I was taken to the clerk and the map was shown to me, and they told me where to file on the section and quarter that I was to file on.

Q. How old are you? A. Thirty-two last August.

Q. You could read well at that time, couldn't you?

A. Yes sir.

Q. Read and write? A. Yes, sir.

484 Q. Did you sign the usual homestead application?

A. Yes, sir.

Q. You understood it? A. Yes, sir.

Q. You made the usual homestead affidavit and non-mineral affidavit? A. Yes, sir.

Q. Now, in the non-mineral affidavit you swore that there was no mineral upon the ground as far as you knew, none showing there?

A. I did, and there wasn't any to the best of my knowledge.

Q. And in the term mineral you included coal, of course?

A. Yes.

Q. There was no coal showing upon this section that you filed upon at that time, was there? A. No, sir.

Q. And never has been, to your knowledge, has there?

A. Not upon the piece that I filed on.

Q. And absolutely no showing of mineral or coal has been developed there at all? A. No, sir.

Q. You made the usual homestead affidavit, that you were getting this land for your own purposes and in good faith?

A. Yes, sir.

Q. And not in the interest of any one else?

A. Yes, sir.

Q. Your affidavit which you signed at that time, and which you understood, Mr. Brown, had in substance the following: "I am not acting as agent for any person, corporation or syndicate in making such entry, nor in collusion with any person, corporation or syndicate, to give them the bene-
485 fit of the land entered, or any part thereof or the timber thereon." That was in substance in the affidavit that you signed, was it not? A. I suppose it was.

Q. It was true, was it?

A. It was the regular form for filing, the same as any one else.

Q. That was true, was it? A. Yes, sir.

Q. Also these provisions that I take from the homestead affidavit blank: "That my said application is honestly and in good faith made for the purpose of actual settlement and cultivation, and not for the benefit of any other person, persons or corporation; that I will faithfully and honestly endeavor to comply with all the requirements of the law as to settlement, residence, cultivation, necessary to acquire title to the land applied for." That was in the affidavit, was it not? A. It was if it is in the regular homestead filing.

Q. In other words, you made all the statements, or you signed the usual homestead filing affidavit? A. Yes, sir.

Q. It was all true, was it? A. Yes, sir.

Q. Still, at that time you did not intend, and never intended to prove up on the land, but intended to relinquish it some fourteen months or so later.

A. No, sir, my understanding was that we were to prove up and then relinquish it after we had bought it from the Government.

Q. You were to prove up on it and get patent or title or Receiver's receipt? A. Yes, sir.

486 Q. And then the relinquishment was to be made after that? A. Yes, sir.

Q. You were to do nothing up to that relinquishment. Now, which is it; which is true, your statement now or your statement made to Mr. Burke on your first examination?

A. The understanding with Thompson and Lees was that we were to relinquish it back to the United States Government in fourteen months.

Q. That you were to do it? A. Yes.

Q. Then, your affidavit that you intended in good faith to prosecute your homestead application through and settle on the land was not true, was it?

A. No, sir, it was not.

Q. You knew at the time that it was false?

A. I didn't know so much about it then as I do now.

Q. You know now that it was false? A. You bet I do.

Q. And you could read then and knew fully what you were signing? A. Yes, sir.

Q. Have you been promised any immunity from prosecution if you testified here?

A. No, sir, I haven't been promised anything.

Q. The Government attorneys have not promised that you would not be prosecuted for what you did about this homestead?

A. No, sir. I told them if there was any prosecution coming or any going to jail, I was going to tell the truth and go right through with it.

487 Q. And you would be glad to do it?

A. Yes, sir.

Q. You really didn't think there would be any prosecution if you told the truth in this case?

A. I didn't care if there was, I was going to tell the truth about it.

Q. You didn't fear it? A. Yes, I did.

Q. You knew you had perjured yourself in connection with this?

A. I knew I had done something that the United States forbids by law.

Q. You don't recall anything about the relinquishment?

A. I couldn't positively remember about it.

Q. What do you remember about relinquishing; what did you do? A. I didn't do anything.

Q. Did you sign any papers?

A. Well, that is what I am not positive about. I have been told that we were taken before a lawyer in Diamondville, and that this relinquishment paper was signed, but I can't remember who the attorney was nor where it took place.

Q. But you remember the rest of it very clearly?

A. Well, I can't call that to memory, but I have been told by other parties that was with me—

Q. Who told you? A. Mr. Aitkin.

Q. What did he tell you?

A. He told me when I met him in Evanston yesterday, that he remembered being there, and he said: "You
488 were there, too, Billy."

Q. What did you understand was the relinquishing; what did you understand by the term?

A. Well, what I would understand by it would be giving up the property.

Q. What would you do; what act would you do or was to be done?

A. Well, I just relinquished it, and it would stop me from having any legal rights to hold it.

Q. Did you mean to relinquish it to the Diamond Company or to whom?

A. No, sir, I never was asked to give it up to the Diamond Company.

Q. Well, giving it up to whom?

A. To the Government.

Q. Mr. Snedden, you said paid some debts of yours?

A. Yes, sir.

Q. This was some two or three or four years after the settlement was on?

A. As near as I can remember it was four years this coming April.

Q. During that time this dispute was on between all of you, was it not, with the Company or Mr. Snedden, whoever you were making your claim against as to the amount you were entitled to? A. Yes, the dispute was on all the time.

Q. You all claimed nine dollars an acre? A. Yes, sir.

Q. And he finally offered and paid debts of yours, and paid you in that way five hundred dollars?

A. He never offered me anything. Mr. Lees and Thompson, I suppose he offered them.

489 Q. Mr. Snedden, finally, you say, paid debts of yours to the amount of five hundred dollars? A. Yes, sir.

Q. Do you believe that you were entitled to nine dollars an acre; did they convince you of that? A. Yes, sir, I do.

Q. You believed it at that time?
A. Yes, and believe it yet.
Q. Did you have a lawyer retained to help you get it?
A. Yes sir.
Q. Who? A. Mr. Salmon.
Q. Now, what did Mr. Snedden say to you about the amount when he paid your debts?
A. He didn't say anything about the amount when he paid the debts.
Q. Well, at any time there, about the amount that was coming to you?
A. They was talking to Tom about it at that time. There was a dispute amongst the boys, and I asked Tom if he wouldn't pay me my money, that I couldn't wait until the family trouble was settled up, because we were all out, and he said "no, I can't do it." He said "you have not got no contract with us. The contract is with Thompson and Lees." I said "I would like to get the money" and he said, "The contract is not no good," and he said, "That is too damn much money, nine dollars an acre."
Q. Did he tell you it was more than the land was worth?
A. Yes, sir.
490 Q. Did he also tell you that it was more than it was worth to merely relinquish your rights in the land, when you had no title to it?
A. He told me it was more than the land was worth.
Q. When was this conversation with Mr. Snedden?
A. I don't remember when it was.
Q. It was some three or four years after your filling, was it not?
A. Probably three or four, yes. Mr. Snedden and I was pretty good friends and had lots of conversations, and I thought I would get my money out of him and let the other fellows fight for theirs the best way they knew how.
Q. You say Thompson showed you a copy of some contract?
A. He read me a copy.
Q. You did not see it yourself?
A. I saw it as he was reading it, but I never had it in my hands.
Q. Did you see it enough to read it yourself?
A. No, sir.
Q. You can not state from your own knowledge what was in this copy?
A. I can not swear to something I did not read.
Q. You don't mean to be understood as saying that in this contract, or even in the copy you saw, there was any reference to any scrip filing upon this land?
A. Only what Mr. Thompson read.

Q. Did he read that from that contract?
A. Yes, sir, and he told me personally several times.
Q. Are you sure about that?
A. He read from the contract, but I won't swear it was in the contract.

Q. Mr. Brown, did you ever hear anything about this
491 scrip filing afterwards till you came here this time to Evanston and didn't you hear it for the first time in your talk with Aitkin and the others here?

A. No, sir; I heard it in the Land Office.
Q. Isn't that the first you ever heard of the scrip filing on this land? A. No, sir.
Q. Are you positive of that?
A. Yes, I am positive that Thompson and Lees both told me this land was being taken up by Soldiers' scrip.
Q. Didn't they tell you this long after the scrip was put on it, and not before that?
A. No, sir, it was before the scrip was ever put on it, because when I asked Mr. Thompson when he was going to square up, and he said Mr. Burrell was away trying to get some scrip, that he had not got scrip enough to buy all the land in.
Q. Was that after you relinquished or before?
A. Before, and after we filed.
Q. You don't know when you relinquished?
A. I can't tell you the date.
Q. How do you know that this was before or after, then?
A. Well, I know how long it was before the coal filing was put on, and that is what brought up the dispute.
Q. You named some others who were paid five hundred dollars each, Thompson and the Two Aitkins, Charles and Thomas? A. Yes, sir.
Q. You said you knew it of your own knowledge?

A. I stood right there and saw the money given to them.
492 Q. Whereabouts?

A. At the Diamond Coal & Coke Company's office at Diamondville.
Q. In money or checks? A. In money.
Q. Actual money? A. Yes, sir.
Q. When was this?
A. Four years next April or the first of May, as well as I can remember.
Q. 1904? A. I believe so, yes, sir.
Q. Did you have any trouble with the Diamond Company when you left there, Mr. Brown, or with Mr. Snedden?
A. No, not to amount to anything.
Q. You were discharged, weren't you?
A. No, not by Mr. Snedden.

Q. Were you discharged by anybody?

A. By Mr. Hunter. I was not working in the mine at the time, though; I was working in the store at the time I left Diamondville.

Q. Store of the Diamond Company there? A. Yes, sir.

Q. You were discharged, there, weren't you?

A. No, sir; I was put on during the Christmas holidays as an extra teamster, and then I went back to go back to the mines Mr. Hunter told me there was not any work for me.

(Witness excused.)

493 Charles Aitken, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Birch:

Q. State your name? A. Charles Aitken.

Q. What is your age? A. Thirty-three.

Q. Residence? A. Idaho Falls, Idaho.

Q. What is your occupation? A. Carpenter.

Q. Did you ever live in Uintah County, Wyoming?

A. Yes sir.

Q. In what particular vicinity?

A. I lived in Ham's Fork and Diamondville and Kemmerer and Cumberland.

Q. When did you first go to Uintah County to live; not to the exact date; just about when.

A. I don't know, about twenty years ago.

Q. You were here then from 1895 on?

A. Yes sir.

Q. Did you ever work for the Diamond Coal & Coke Company? A. Yes, sir.

Q. What was you doing for them?

A. Driving a mule in the mine.

Q. What year was that?

494 A. Well, I don't remember just what year it was; I worked for them several times; I don't remember what year it was.

Q. You were unmarried then? A. Yes, sir.

Q. Living with your people? A. Yes, sir.

Q. Are you any relation of Mr. Brown, who was just sworn here? A. Yes, sir.

Q. What? A. Brother-in-law

Q. Did you take up a homestead? A. Yes, sir.

Mr. Kelley: We make the same objection to all of this evidence.

Mr. Birch: Yes, the same objection may be understood.

A. Out in Cumberland, out on the Cumberland, the west half of the northeast quarter and the east half of the northwest quarter of section 18.

Q. Can you pick it out on this map?

A. No, I don't know as I can.

Q. Here is 18 and 19.

A. No, I don't believe I can.

Q. Can you tell what the description of it was; have you got any memorandum or anything of that kind so that you can tell what the description of it is? If you have got a memorandum in your book—

495 A. No, sir, I have just got—

Q. Have you looked it up since you have come here?

A. I have just got the memorandum of the land that was taken up, just as I gave it to you.

Q. Well, give it now; just read it now.

A. The west half of the northeast quarter and the east half of the northwest quarter.

Q. Of what?

A. Of section 18, township 19 north, range 116 west.

Q. How did you come to take that homestead up?

A. Well, they was filing on land in around there and we got talking about it there.

Q. We?

A. Jim Lees and Jim Thompson and Brown and Jim Aitkin and myself.

Q. Jim Aitkin is your brother?

A. Yes, sir, and we thought as long as we were working around there we would take up some land in there, that it would be worth something some day, may be. So we came to Evanston and filed, a bunch of us, I believe.

Q. Who came with you to Evanston?

A. Why, there was Thompson and Lees and Brown and myself and Jim Aitkin.

Q. Who paid your expenses?

A. Why, I believe it was Thompson—no, it was Jim Lees paid the expenses, I remember.

Q. Who paid the entry fees?

A. Well, I borrowed the money from Jim Lees?

Q. You borrowed the money from Jim Lees?

A. Yes, sir.

496 Q. Is Jim Lees a capatilist in any way? A. No.

Q. What was his business at the time?

A. Well, I think he was working in Kemmerer at the time, with the Kemmerer Coal Company.

Q. Had he worked for the Diamond Coal & Coke Company at any time? A. No, sir, he had not.

Q. Who were you working for at that time?
A. The Kemmerer Coal Company.
Q. Now, who made out the papers, the entry papers?
A. In the Land Office, you mean?
Q. When you came here and filed on the description?
A. I don't know who made it out. We got the description and went over the land and got the description from Thompson and Lees. Then, they gave us the description of the land and we filed on it.
Q. Well, you came here and somebody made out the papers?
A. Yes, sir.
Q. Where were they made out, before you left up there?
A. No, they was made out after we got here.
Q. How did you get here?
A. We drove over in a wagon.
Q. Whose wagon was it?
A. I don't remember, but I think it was Jim Lees's.
Q. He owned a wagon, did he? A. Yes, sir.
Q. Whose team was it? A. It was his team, too.
Q. You can not tell who made out the papers?
497 A. In the Land Office, no, I can't; I don't remember who it was.
Q. Were they made out in the Land Office or in the law office or where?
A. They were made out in the Land Office.
Q. Here in the city? A. Yes, sir.
Q. Who gave you the description of this land that you was going to take? A. Lees and Thompson.
Q. Did you go on the land before you came?
A. Yes, we went over the land before we came.
Q. Who took you over the land?
A. Yes, we were all over it.
Q. What was the understanding, now, at the time you took this land?
A. There was no understanding at all when we took it up.
Q. No understanding at all? A. No.
Q. Was Brown there? A. Yes, sir.
Q. He was one of the parties? A. Yes, sir.
Q. Did they claim to have a contract, Thompson and Lees, with anybody at that time? A. Not when we took it up.

Mr. Kelley: That is objected to as leading.

Q. Not when you took it up?
A. Not as I can remember of.
498 Q. Afterwards did they claim to have a contract?
A. Yes, sir.
Q. Who was that contract with that they claimed to have?

Mr. Kelley: Objected to as incompetent, irrelevant and immaterial.

A. The Diamond Coal Company.
Q. Did you see that contract? A. No, sir, I did not.
Q. Did you hear it read? A. Yes, I heard it read.
Q. Was it in somebody's hands and was somebody reading it?
A. Well, I don't believe I ever heard the original read; I heard the copy of it.
Q. Well, the copy of it, whose hands was it in?
A. It was in Lees and Thompson's.
Q. Which one of them read it?
A. I believe it was Jim Lees.
Q. Did it purport to be a contract between them and some body else in regard to the land? A. Yes, sir.
Q. Who was that somebody else?
A. The Diamond Coal Company.
Q. You are pretty sure you heard the Diamond Coal Company read in it? A. Yes, sir.
Q. By Lees? A. Yes, sir.
Q. And what was the nature of that contract?
A. Well, now, wait a minute; I don't know, now. I
499 don't know whether it was the Diamond Coal Company, or Henry Burrell, but I know it was for the Diamond Coal Company.
Q. It was so read to you? A. Yes, sir.
Q. What was you to do in connection with that contract, sell your land or relinquish it?
A. We were to relinquish it.
Q. To whom? A. Back to the Government.
Q. And what were you to receive from the Government for relinquishing it? A. From the Government?
Q. Yes. A. We wasn't to receive anything.
Q. Was you to receive anything from anybody else?
A. Yes, sir.
Q. Who was that somebody else?
A. Well, Henry Burrell, the superintendent of the Diamondville Company.
Q. How much was that? A. Nine dollars an acre.
Q. Was the total amount stated, or just so much per acre?
A. Just so much per acre.
Q. You took up a whole 160, did you, as you understood it?
A. Yes, sir.
Q. And was there any arrangement made as to when you should receive this?
A. Well, we was to receive the money when we relinquished, but we didn't receive it.

Q. Of course, but did you build a house on the land?
500 A. No, sir, I didn't build any on mine.
Q. There was one built, wasn't there?
A. Yes, sir.
Q. Who built that? A. Billy Brown and Jim Thompson.
Q. Did it cost you anything? A. No, sir.
Q. You didn't invest any money in that at all?
A. No, sir.
[—] Did you ever pay that money back to Mr. Lees or Mr. Thompson that they paid for your original entry?
A. No, sir.
Q. Did they ever ask you for it?
A. No, sir.
Q. You weren't crowded for that? A. No, sir.
Q. Did they say where they got their money from, Jim Lees or Thompson?
A. Well, the Company afterwards paid for it all, so that squared it.
Q. That canceled it with you? A. Yes, sir.
Q. So you didn't have to pay it, then?
A. No, I didn't have to pay it.
Q. You say the Company did; how do you know?
A. Well, they told me, Jim Lees and Thompson.
Q. The Company didn't tell you that? A. No.

Mr. Evans: We move to strike that out as hearsay and
501 entirely incompetent.

Q. Do you remember the time, the date when you entered that land? A. When I filed on it?
Q. Yes. A. It was on the 5th of July, 1898.
Q. What makes you recollect it was the 5th of July?
A. Because I came over here on the 3rd of July, and we had to lay over until the 5th before we could file on it.
Q. You couldn't do it on the 4th of July? A. No.
Q. And how long was it before you began to hear about this contract or arrangement for relinquishing and getting nine dollars an acre; how long after that before they began to talk that to you?
A. Why, I think it was a couple of months after I filed.
Q. Who was it first propounded that?
A. Why, Jim Lees and Thompson.
Q. And was that the time you heard this contract read?
A. No, sir; there was no contract right then, I don't think.
Q. What was the proposition then; who were you to relinquish in favor of at that time, when you first heard of it. Was there anybody mentioned, any company or anybody?
A. I didn't understand.

Q. The first time you first heard this subject of relinquishing talked by Thompson and Lees, who did they talk that it was to be relinquished to; to whom?

A. It was to be relinquished back to the Government.

Q. Yes, I know, but in whose favor; who was to get it?

502 A. The Diamond Coal Company.

Q. That was about two months after the entry, you think? A. Yes, as near as I can remember.

Q. That would be about the month of September, 1898, then. You entered your land on the 5th of July, and that would be about in the month of September afterwards.

A. Yes, somewhere around there, I think.

Q. How long was it after you first heard of this relinquishment, that you learned that they had a contract with Burrell?

A. Well, the Company made them this offer, or Henry Burrell did, made them this offer.

Q. Was you present? A. No, sir, I was not.

Q. You heard that the Company made this offer?

A. Well, they called us together and told us what the Company offered to do.

Q. That means Thompson and Lees?

A. Thompson and Lees, yes, sir.

Q. And told you what offer the Company had made or what offer Burrell had made for the Company? A. Yes, sir.

Q. Which way was it now? Take your time and be perfectly easy and try and think just exactly what was said and how it was said and tell it, at your first meeting.

Mr. Kelley: Don't you restrict it to telling what he knows; do you ask him to tell what somebody told him?

Mr. Birch: No, I don't restrict him at all. You can
503 answer the questions yourself if you want to, if you know more about it than he does.

Mr. Kelley: I dont think that would be very hard.

A. Thompson and Lees called us and asked us what we thought about it, and told what the Diamond Company or Burrell had offered. And we said if got nine dollars an acre it was more than we thought it was worth, and we agreed to it and so they had the contract drawn up.

Q. When was the next time that you heard about it, and what occurred?

A. Well, I dont remember. We were all in there pretty close together and talking about it at different times.

Q. When was the next time, I ask you, that you saw and heard read the contract?

Mr. Kelley: We object. The witness has not said that he saw it or heard it read.

Q. Well, you saw it in somebody else's hands?
A. The copy of the contract?
Q. Well, you saw the paper in somebody else's hands?
A. Yes, sir.
Q. That somebody else was Jim Lees? A. Yes, sir.
Q. And you heard it read by Jim Lees? A. Yes, sir.
Q. You can now tell about what time it was and what the contract said?

504 A. I dont remember how long after it was, and I dont remember anything that was in the contract there.

Q. Was the contract that you were to get a dollar an acre for it? A. No, it was nine dollars per acre.
Q. You do remember something, then, that was in the contract, dont you? A. Yes, sir.
Q. Who was to pay you; who was you to get it from?
A. We was to get it from the Diamondville Coal Company.
Q. And the contract was with Mr. Burrell, between Thompson and Lees and Burrell? A. Yes, sir.
Q. What was Burrell doing at that time, and what kind of man was he; was he an officer of any kind?
A. He was General Manager of the Company.
Q. How do you know that; that is to say, what makes you think he was?
A. Well, he was doing the business and said he was General Manager.
Q. He was carrying on their operations there at Diamondville and that vicinity? A. Yes, sir.
Q. In and around their store? A. Yes, sir.
Q. Acting apparently as if he was boss of the whole concern? A. Yes, sir.
Q. And everybody seemed to mind him and do his bidding? A. Yes, sir.

505 Mr. Kelley: I will venture to suggest, Judge, that you are leading the witness.

Mr. Birch: Possibly it may be open to that objection. I will try and amend it. It does not make any difference to me.

Q. Now, you told him to go on and sign the contract; did you tell him to go on and sign the contract; what did you tell him?
A. I told him that I would agree to their terms, that if the balance was all satisfied, that I was.
Q. I think it would be more satisfactory to counsel on the other side if you testified instead of me, so you tell what occurred.

A. Why, we agreed to relinquish back to the Government at nine dollars an acre, that is, between ourselves, and Lees and Thompson, we put them in as agents for us, to look after our rights. We were all working around there, and whatever they done was agreeable to us.

Q. Did you do it; did you relinquish? A. Yes, sir.

Q. Now, tell us all about that, when that happened and how.

A. Well, we relinquished before a lawyer there in Diamondville; he came after us and we went down there.

Q. What was his name? A. I dont remember.

Q. What kind of office did he have?

A. Well, he was an attorney; I dont believe—

Q. Did he have an office in some building, a law office?

506 A. I dont think he did.

Q. Did he carry his office in his hat?

A. Yes, or any place.

Q. Well, he had the reputation of being a lawyer?

A. Yes, sir.

Q. You dont remember his name? A. No, sir.

Q. Did you go to him and make out a paper and sign it?

A. Yes, signed a paper.

Q. Did you ask anybody else whether it was all right or not? A. No, sir.

Q. Did any of you? A. Not in my hearing.

Q. Didn't he read it to you before you signed?

A. No, he told me just what it was.

Q. What did he tell you it was?

A. That it relinquished my right back to the Government, that was all, on the place I filed on.

Q. Did he tell you whether you were to get anything for it?

A. No, sir.

Q. You trusted him, didn't you? A. Yes, sir.

Q. Or did you trust the others?

A. I trusted Jim Lees and Thompson. They were doing the business.

Q. And you expected to get nine dollars an acre for doing what you did? A. Yes, sir.

Q. Now, after you signed that paper did you keep it, or who kept it?

507 A. I never seen it any more, no, sir.

Q. Who kept it?

A. I don't know whose hands it went into.

Q. What next happened; when did you get your nine dollars an acre? A. We never got it yet.

Q. What did you get?

A. I got five hundred dollars.

Q. Who did you get it from?
A. From the cashier in the Company's office.
Q. Cash money or a check or what?
A. Yes, I got cash money.
Q. Was there any disturbance in your mind over the amount, that was not nine dollars an acre? A. No, sir.
Q. Did you have any disturbance, or did you complain about it or anything? A. Well, they did.
Q. Who? A. Jim Lees and Thompson.
Q. To whom did they complain?
A. To the Company.
Q. In your presence; were you present?
A. I was present once when they talked the matter over with Snedden, and he said he never would pay it, it was too much money.
Q. Was that the only reason? A. Yes, sir.
Q. At that time was there anything in that conversation mentioned about this written contract?
A. Yes, sir.
508 Q. What was it?
A. Why, when they talked about it, Jim Lees and Thompson told him he was not fulfilling the contract. He said he didn't care for the contract, he never made it, and he said: "You will have to see Burrell about that," and Burrell was not working for the Company then; he got let out before Snedden was made superintendent.
Q. So you didn't get nine dollars an acre, but you did get five hundred dollars? A. Yes, sir.
Q. Did he say the Company would pay you five hundred dollars? A. Tom Snedden said that, yes, sir.
Q. Who was it that actually handed you the cash?
A. It was the paymaster there in the Diamondville office.
Q. What was his name?
A. Peterson, I think, or Peters, some such name as that.
Q. In the office? A. Yes, sir.
Q. In there, over their counter?
A. Peterson, I believe was his name.
Q. Did he pay you right over that counter?
A. Yes, sir.
Q. Did you give any receipt for it? A. No, sir.
Q. The other you have not got yet, the remainder of the nine dollars? A. No, sir.
Q. Now, at the time was there any talk about the coal up in that region?
509 A. Yes, there was when we relinquished back to the Government.
Q. No, was there talk around there that that was a coal country up in there, I mean generally.

Mr. Kelley: Objected to as incompetent for the purpose of establishing the character of the land.

A. Yes, sir.

Q. At the time you relinquished this was that talked?

A. Yes, sir.

Q. And had been some time previous up there? A. No.

Q. I don't speak of your particular land now, but I mean the country up and down the line there?

A. There was some prospects there when we filed, and I don't believe there was any talk about coal land up in there then.

Q. When you filed, but at the time you relinquished, how was it then?

A. Yes, they was talking about it and prospecting along in there.

Q. There was much talk about it then, wasn't there?

A. Yes.

Q. Now, what did Snedden say about the coal business in this location?

A. Well, I don't remember what he said.

Q. Yours was good, agricultural land, wasn't it, that you entered? A. Yes, sir.

Q. It would plow easy?

510 A. I don't know; I never plowed any yet.

Q. I mean it was loose land and a plow would run through it? A. Yes, sir.

Q. Not much rocks on there? A. No, sir.

Q. Nothing much but sage brush on it?

A. That was all there was on it.

Q. Plenty of water, wasn't there?

A. No, there was not much water.

Q. Where were you going to get your water to cultivate it with; what did you expect to do with it?

A. Well, I wasn't going to cultivate it; I was going to use it more for grazing land.

Q. Was there some grass on it?

A. Yes, sir.

Q. Did you ever see any stock there pasturing right there?

A. Yes, sir.

Q. Was it yours or somebody else's?

A. No, somebody else's.

Q. Your idea was to make money out of it at that time you entered it as grazing land? A. Yes, sir.

Q. You never had any idea of any coal being on it at all?

A. No, sir.

Q. You don't think Mr. Snedden wanted it for anything but grazing?

Mr. Evans: We object to what the witness thought.

511 Q. Was the Diamond Coal & Coke Company farming there at that time? A. No, sir.

Q. Were they pasturing stock out?

A. No, sir, not as I know of.

Q. Grazing? A. Not as I know of.

Q. Did you hear any talk in the neighborhood there about their buying land for farming purposes? A. No, sir.

Q. Did Mr. Snedden ever say anything to you that led you to think that he was interested in agriculture?

A. No, sir.

Q. He was running it for coal, wasn't he, that country; that is what the Company controlled?

A. That is what I thought.

Q. But he did not mention coal at the time he had this talk with you about the land not being worth it?

Mr. Kelley: We object to counsel leading the witness. It is your witness.

Mr. Birch: In a sense that is true. You know the rule, and put in your objection as we go along. You understand that in certain cases we can ask leading questions.

Mr. Kelley: We object to this particular question as leading. We object to the line of examination that is being pursued, upon the ground that it is largely hearsay, that all of it is leading, and that it is improper under all the rules
512 of examination.

Q. Now, after you got your five hundred dollars you didn't concern yourself about this any further? A. No, sir.

Q. And when you were subpoenaed at Idaho Falls, you came straight here? A. Yes, sir.

Q. You didn't go over to Kemmerer or Diamondville?

A. No, sir.

Q. Or see anybody on the way? A. No, sir.

Cross-examination

By Mr. Kelley:

Q. Mr. Aitken, you are residing, I believe, at Idaho Falls and were when you were subpoenaed? A. Yes, sir.

Q. Who subpoenaed you?

A. Why, I don't know the name. It is here, I believe (producing paper) "Reiner."

Q. Was it some official; "Rounds". It was the marshal for Idaho, wasn't it? A. Yes, sir.

Q. And you came down in pursuance of that subpoenae?

A. Yes, sir.

Q. How long since you moved from Wyoming?

A. I think I left in 1902.

Q. And since that time you have not been interested in this coal land up around Diamondville, have you?

513 A. No, sir.

Q. Now, when was it that you made the homestead filing? A. I made it on July 6th, 1898.

Q. You said you made it down in Cumberland, I believe. Was there any such place as Cumberland then? A. No, sir.

Q. That country was developed subsequent to that time, was it not? A. Yes, sir.

Q. And the town of Cumberland was built some time afterward? A. Yes, sir.

Q. At that time there was no railroad down in there, was there? A. No, sir.

Q. The branch line of the Oregon Short Line was built a number of years afterwards, was it not?

A. Out to Cumberland?

Q. Yes, the Cumberland Branch, I believe they call it.

A. I don't remember; it was not very long after, I don't think, a year after.

Q. There was no railroad in there at the time, you are quite positive of that? A. Yes, sir.

Q. This ground that you took up at the time, by whose suggestion, did you say, you took it up?

A. Jim Thompson and Lees.

Q. There were a number of people filing on homesteads?

A. Yes, sir.

Q. And you went in and made a homestead filing?

A. Yes, sir.

514 Q. You had no particular arrangement with anybody to do that, except that it was suggested to you that you might take it up? A. Yes, sir.

Q. And at the time you took it up you came to Evanston to make the filing? A. Yes, sir.

Q. You came down on the 3rd of July, I think you said?

A. Yes, sir.

Q. Did you come down with Brown; do you remember that he was in the party?

A. I am not certain, but I think he was.

Q. How did you come down? A. I came down in a wagon.

Q. With whom?

A. With Jim Lees and Thompson, and my mother came down with us, and I am satisfied that Brown and Aitken was in the party.

Q. You are quite sure it was on the 3rd?

A. Yes, sir.

Q. That is the way you fix the date?

A. Yes, sir.

Q. Now, you said on your direct examination that you took it up on the theory that it might be worth something some day?
A. Yes, sir.
Q. This ground at that time up there was looked upon as pasturage land, was it not? A. Yes, sir.
Q. The same sort of land that is classified as grazing land throughout the country?
A. Yes, sir, that is what I took it up for.
515 Q. At that time you were working for the Kemmerer Coal Company? A. Yes, sir.
Q. And Lees was also working for the Kemmerer Coal Company? A. Jim Lees, yes, sir.
Q. Now, afterwards, I believe you said, some time after that time after you made this filing, Thompson and Lees came to you and talked about a contract? A. Yes, sir.
Q. How long after you made the filing was that?
A. Well, I don't remember; I was guessing at it, but I think it was about two months, may be more, may be less.
Q. The general situation was discussed among you all, you were friendly? A. Yes, sir.
Q. And at that time the proposition was that some sort of contract might be entered into that would permit you to dispose of the land or to relinquish your rights there?
A. That is the idea, yes, sir.
Q. And at that time you were given to understand that you could possibly get nine dollars an acre for your relinquishment?
A. Yes, sir.
Q. You said that you thought that that was more than the land was worth, and that you were glad to accept it?
A. Yes, sir.
Q. You were familiar with this land, were you not?
A. Yes, sir.
Q. You had gone over it a number of times?
A. Yes, and stayed on it.
516 Q. And going back for a moment to the time that you filed, you signed the usual homestead papers?
A. Yes, sir.
Q. Do you remember signing the affidavit in regard to the character of the land and your intentions? A. Yes, sir.
Q. And in that affidavit you swore that the land was taken up for yourself, and not for the benefit of any other person or corporation? A. Yes, sir.
Q. And that was true, was it not? A. Yes, sir.
Q. You also swore at that time that the land was non-mineral? A. Yes, sir.

Q. And that to the best of your knowledge and information and belief that was also true, was it not? A. Yes, sir.

Q. At that time you knew you were swearing that there was no coal on the land?

A. Yes, sir; I never seen anything to swear any other way.

Q. In all the times that you have been over this land and looked at it, have you ever seen any coal on the land?

A. No, sir, I never did. I haven't been over it for some time.

Q. According to your best knowledge, information and belief there was no coal on the land at that time; that is true, isn't it? A. Yes, sir.

Q. You don't know yet that there is any coal there, do you?

A. No, sir, I do not.

517 Q. Afterwards there was some difficulty, as I understood you?

Mr. Birch: About this payment of this nine dollars an acre?

A. Yes, sir.

Q. You had some talk with Snedden once about it, I believe?

A. I talked to Snedden. I couldn't get anything out of the other fellows, so my brother and I went down; it was either my brother and I or Billy Brown and I, and we talked to Snedden, and he said he didn't know us at all and wasn't doing business with us.

Q. Who were the other fellows that you mentioned you had some talk with? You said you couldn't get anything out of the other fellows, so you went down to Snedden.

A. That was Jim Lees and Thompson.

Q. You went down and saw Snedden?

A. Ourselves.

Q. And you had a talk about this and about the nine dollars an acre? A. Yes, sir.

Q. The price that you understood had been agreed to be paid for it? A. Yes, sir.

Q. And Snedden told you he wouldn't pay it?

A. Yes, sir.

Q. Said he didn't think it was worth it?

A. That is what he said; said it was more than it was worth.

Q. That was the land that he was referring to, of course?

A. Yes, sir.

518 Q. Now, afterwards, I believe, you got five hundred dollars from the Company? A. Yes, sir.

Q. Which you understood was for a relinquishment of your rights, or some sort of settlement, because you had relinquished?

A. Yes, sir.

(Witness excused.)

519 James Aitken, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Birch:

Q. How old are you?

A. I will be twenty-seven in March.

Q. And you live at Kemmerer?

A. Twenty-seven years the first of last March, yes, sir.

Q. What is you business or occupation?

A. Well, sometimes I follow the mines in the winter, and riding during the summer after horses.

Q. You have lived up there quite a good while, have you?

A. Yes, sir.

Q. You are brother to Charles, who just testified?

A. Yes, sir.

Q. You took up a homestead? A. Yes, sir.

Q. Your mother took up one? A. No, sir.

Q. Didn't your mother take up one? A. No, sir.

Q. You are related to James Lees? A. Yes, sir.

Q. And to James Thompson? A. Yes, sir.

Q. And you are a brother-in-law to them?

A. Yes, sir. James Thompson is an uncle of mine.

Q. You all took up homesteads, didn't you?

520 A. Yes, sir.

Q. Do you know where that was?

Mr. Kelley: We make the same general objection as heretofore entered to the evidence of this witness in regard to homesteads.

Mr. Birch: It may be taken subject to all these objections.

Mr. Evans: And also to all conversations and hearsay testimony.

Mr. Birch: Yes.

Q. Have you the description of the homestead you took up?

A. Yes, sir.

Q. Just state it.

A. It was the west half of the southeast quarter and the east of—

Q. If you can pick it out on the map, you can do it and read from there, or if you have a memorandum in your pocket you can read from there. That is only preliminary and not very important.

A. The west half of the northeast quarter and the east half of the northwest quarter of section 18, township 19 north, range 116 west.

Q. Do you remember when you did that?
A. Yes, sir.
Q. When was it? A. July 5th, 1898.
Q. There were several of you in the bunch that took
521 up homesteads at the same time? A. Yes, sir.
Q. Who put you in mind of it first; who encouraged you to do this first? A. Thompson and Lees.
Q. Now, did they afterwards, some time, act as agents for you in respect to this land? A. Yes, sir.
Q. Did you ever build on it? A. Yes, sir.
Q. Yourself? A. No, sir.
Q. Who built on it?
A. Jim Thompon and Will H. Brown.
Q. Did you pay them for it? A. No, sir.
Q. Did you pay your own entry fees and expenses down here? A. Yes, sir.
Q. You paid your own entry fees? A. Yes, sir.
Q. Who let you have the money?
A. For paying my fees?
Q. Yes, here at the Land Office.
A. Jim Thompson and Jim Lees.
Q. Did you ever pay them back anything for it?
A. No, sir. Yes, I did pay them back.
Q. When was it, after you got your money out of it?
A. Yes, sir.
Q. Well, now, you took that up for what kind of land; what was the value that you desired in it, that you saw in it when you took it up for a homestead?
522 A. What value?
Q. Yes, what did you take it up for? You took it up as a homestead, but what did you take it up for?
A. I took it up for grazing purposes.
Q. Did you have any cattle or horses at that time?
A. Yes, sir, I had some horses.
Q. Did you pasture them on the land? A. No, sir.
Q. Did you ever fence it? A. No, sir.
Q. Then, you didn't work at it much? A. No, sir.
Q. You didn't even build a house on it? A. No, sir.
Q. Now, how long after you had taken it up was there a proposition, if at any time, to part with it? A. Sir.
Q. How long after you had filed on the land in the Land Office here on the 5th of July, 1898, was it first suggested that you part with the land, let the land go?
A. Why, you mean when I took and relinquished it?
Q. No, when you began to talk about that; how long after you entered and filed on it was it that you began to talk about letting it go again?

A. Oh, about six or eight months, something like that; I couldn't just exactly say; something along there.

Q. How did you come to talk about that?

A. Why, we were offered nine dollars an acre for it.

Q. Who by?

523 A. Well, it was by Jim Lees and Jim Thompson.

Q. Did they say they wanted it for themselves?

A. No, sir.

Q. What did they say; just go on and tell what they said about it.

A. They just said that Henry Burrell—that they could sell it to Henry Burrell for nine dollars an acre.

Q. That is, to Henry Burrell, himself, or did they say anything about as to who was to have the land; was it Henry Burrell, personally, or Henry Burrell for somebody else?

A. No, sir, there was not anything said about who was to have it at all, any more than Henry Burrell was going to give nine dollars an acre.

Q. Well, you understood that if you did that you were to relinquish it to the United States? A. Yes, sir.

Q. Why did Henry Burrell want it, did they say, given back to the United States; what did he want it relinquished to the United States for; what was their talk?

Mr. Kelley: We make the objection that this is all immaterial and hearsay.

Q. Now, why did Henry Burrell want it given back to the United States; what did Lees and Thompson say about that, just tell us? A. So as he could buy it up.

Q. So he could get it. What did he want it for? Was Burrell a farmer? A. No, sir.

524 Q. Was he a stock raiser?

A. No, sir; he was superintendent of the Diamond Coal & Coke Company.

Q. Were they farmers? A. No, sir.

Q. Or stock raisers? A. No, sir.

Q. What did they want it for? What did he say they wanted it for? A. Henry Burrell?

Q. No, what did Thompson and Lees say Henry Burrell wanted it for?

A. They never said what he wanted it for; he just wanted it, and offered nine dollars an acre for it.

Q. That is all they said?

A. Yes, if we would turn it back or relinquish it to the Government.

Q. You concluded to do so? A. Yes, sir.

Q. Did he read the contract that he had with Burrell; did they read the contract that they had or claimed that they had? A. Yes, sir.

Q. Did you read that yourself?

A. No, sir, I never read it myself; they wouldn't let me have it.

Q. Did you see it? A. Yes, sir.

Q. That is, you saw a piece of paper?

A. I saw a piece of paper.

525 Q. And Lees, or did somebody purport to read that paper to you? A. Yes, sir.

Q. Who was that somebody?

A. That was Thompson and Lees.

Q. Can you tell us what he read to you?

A. Well, he just went along and he took and kind of bound himself nine dollars an acre; that was the principal part of it.

Q. Who? A. Henry Burrell.

Q. Henry Burrell bound himself; did it mention about anybody else except himself; was there any company or anything of that kind, in reading from the paper? A. No, sir.

Q. Was your brother present when this was done?

A. Yes, sir.

Q. Was Mr. Brown present? A. Yes, sir.

Q. And you didn't hear anything said about anybody but Henry Burrell in the paper?

A. That is all that I mind that was on the paper.

Q. Well, all that you recollect now? A. Yes, sir.

Q. You don't recollect any company or anything like that being mentioned in the paper as he read it? A. No, sir.

Q. Would you say that there was not?

A. No, sir, I wouldn't say that there was not.

Q. Now, you had a conversation and agreement with them, that they could sell, that is, Thompson and Lees, could

526 sell the land for you? A. Yes, sir.

Q. Were they to make anything out of it from you?

A. Thompson and Lees?

Q. Yes, for their services. A. No, sir.

Q. You were to receive nine dollars an acre?

A. Yes, sir.

Q. Not from any one else or to convey it to any one else, just to relinquish it to the Government? A. Yes, sir.

Q. Did you understand from that paper or from any statement that you must build a house on it or live on it and prove up on it? A. No, sir, not at the time.

Q. Were you not to do so; was there anything said one way or the other?

A. That we were to take and build a house on it?

Q. No. Were you or were you not to prove up on the land, to live on the land and prove up on it?

A. Well, they wanted us to prove up on the land in the first place.

Q. They, who do you mean by they?

A. Well, Thompson and Lees and Henry Burrell?

Q. Wanted you to live upon the land and prove up on it in the first place? A. Yes, sir.

Q. That was the first interview you had? A. Yes, sir.

Q. Was Burrell there? A. Yes, sir.

527 Q. Oh, Burrell was there? A. Yes, sir.

[Q. Oh, Burrell was there? A. Yes, sir.]

Q. Was he there when the paper was read?

A. No, sir; it was after that that the paper was made out.

Q. Now, you did have a talk when Burrell was present, before that paper was made out? A. Yes, sir.

Q. Was that before you made the entry or after the filing had been made?

A. After we had made the filing.

Q. You understood, then, that you had to live on it for five years and prove up on it and all that?

A. Yes, sir; that was what he wanted us to do in the first place.

Q. Go right along and tell what he wanted; mention who he is; do you mean Burrell now? A. Yes, sir.

Q. Now, tell what he said.

A. He said that if we would take and prove up on it he would take and give us nine dollars an acre, and then Henry Burrell took and said he couldn't take and be doing that without frauding the Government, and that he would just take and have us relinquish, and we would get nine dollars an acre for it.

Q. He didn't want to make any fraud on the Government, did he; that is, he talked that way? A. Yes, sir.

528 Q. He thought it was better to give the land back to the United States? A. Yes, sir.

Q. And you would get nine dollars an acre for giving the land back to the United States? A. Yes, sir.

Q. Now, did Henry Burrell talk that to you afterwards?

A. No, sir; that was what Jim Lees said, the way he spoke to Jim Lees, for us to relinquish the ground.

Q. Now, how soon after that did you relinquish?

A. After this talk?

Q. No, after you talked with Lees and Thompson and after you heard the paper read, how soon did you relinquish?

A. Why, it was along about that same month, I couldn't just exactly tell the date.

Q. Meanwhile, had this house been built on the place?

A. Yes, sir.
Q. Was the house built by Christmas time or earlier or later?
A. Well, it was along about Christmas time, I should think.
Q. And you went on and relinquished it?
A. Yes, sir.
Q. Do you know about when you relinquished it?
A. We relinquished it on June 17th.
Q. That was the next June? A. Yes, sir.
Q. Did you live in the house all winter? A. No, sir.
Q. Weren't you married then? A. No, sir.
Q. How much of the time did you live in there?
529 A. Why, I never lived on it but very little.
Q. Did you live on it any?
A. Why, we slept two or three nights on it.
Q. After the house was built did you plant some beans or something there? A. No, sir.
Q. Nothing else? You didn't sow any grass seed?
A. No, sir.
Q. Nothing done? A. No, sir.
Q. Did you put any fence on it? A. No, sir.
Q. And you relinquished it the next June?
A. Yes, sir, in 1899.
Q. Are you sure it was not in May?
A. No, it was in June.
Q. Then you had had it nearly a year when you relinquished it? A. Yes, sir.
Q. Did you get your nine dollars an acre? A. No, sir.
Q. How did it come that you didn't get the nine dollars from Burrell?
A. Why, they didn't live up to what they said they would do.
Q. Was he still with the Company?
A. Yes—no, I don't know, either. He was not working for the Company at the same time we relinquished.
Q. He had left? A. Yes, sir.
Q. Then, how on earth did you come to relinquish; who
530 got you to relinquish?
A. It was through Mr. Whyte.
Q. Who is Whyte?
A. He is the superintendent of the Diamond Coal & Coke Company.
Q. Was he superintendent at that time?
A. Yes, at the time we relinquished.
Q. Is he now? A. I think he is.
Q. Is he here in the room? A. Yes, sir.
Q. Right here in the room now? A. Yes, sir.
Q. The same man? A. Yes, sir.
Q. Tell us what he said and what you said.
A. He never spoke to me at all.

Q. Were you present?
A. No, sir. He spoke to Jim Lees and Jim Thompson.
Q. You didn't hear this now? A. No, sir.
Q. They reported to you what he said?
A. Yes, sir.
Q. What did they report to you about what Mr. Whyte wanted?
A. Well, that we should take and relinquish this ground, because we couldn't live on it.
Q. Why couldn't you live on it?
A. Why, I guess— I don't know how it was, but we couldn't live on it.
Q. They told you you couldn't live on it?
531 A. Yes, sir.
Q. Did you understand them to mean that you couldn't make a living on it, or that you wouldn't be allowed to live on it?
A. Well, I guess they thought we couldn't make a living on it.
Q. Well, you thought so when you entered it, didn't you?
A. Yes, sir.
Q. Well, when that came from Mr. Whyte through Mr. Lees, it had great force with you? A. Yes, sir.
Q. And there was also something said about paying you something not to live on it?
A. Yes, this here contract would still stand.
Q. Did you have any intimation that you could not have the nine dollars an acre? A. No, sir.
Q. No intimation but what you would get the nine dollars an acre?
A. No, sir; we were to get nine dollars an acre for it.
Q. Was that so reported to you? A. Yes, sir.
Q. Mr. Whyte thought you could not live on this land, but they were willing to pay nine dollars an acre for it?
A. Yes, sir; they was to pay nine dollars an acre for it.
Q. Did they say what they wanted it for?
A. No, sir.
Q. You don't know whether he thought he could make nine dollars an acre off it or not? A. I didn't know.
Q. You didn't know anything about that?
532 A. No, sir.
Q. Or what their ideas were?
A. What he was after this for.
Q. Well, you relinquished upon an understanding, then, that you were to receive nine dollars an acre? A. Yes, sir.
Q. Coming to you through Mr. Lees from Mr. Whyte?
A. Yes, sir.

Q. Who was then in the employ of the Diamond Coal & Coke Company?

A. Yes, sir. He took Henry Burrell's place.

Q. You knew him to be in such employ? A. Yes, sir.

Q. Now, you relinquished, and when did you get your money? A. I never got all the money out of it.

Q. When did you build this house?

A. I built it along about Christmas, some time along about that time.

Q. You built it?

A. No, sir; Jim Thompson and William H. Brown built it.

Q. Did they build it for you? A. Yes, sir.

Q. How much did you pay them for it?

A. I never paid them at all.

Q. That was good to them. What kind of house was it?

A. It was just a lumber shack.

Q. Do you know who did build it?

A. Yes, sir, James Thompson and W. H. Brown.

Q. Do you know who furnished the lumber?

A. Yes, sir.

533 Q. Who? A. The Diamondville Coal Company.

Q. Who drew the lumber; was it Charles Amoss?

A. I believe it was; it was either him or Joe Simpson, I wouldn't be sure; it was one or the other of them. He was working for Amoss, and either Joe Simpson or Charles Amoss hauled the lumber.

Q. You never knew who paid for the lumber?

A. No, sir.

Q. You only know that the Company furnished the lumber? A. Yes, sir.

Q. Now, how long after that did you get what money you did get?

A. Some time later, two or three years afterwards.

Q. Did you have any ill feeling or misunderstanding or negotiations with anybody about getting your money?

A. Yes, sir.

Q. Who? A. With Johnny Salmon.

Q. Who is Johnny? A. He is an attorney at law.

Q. Where did he practice?

A. He practiced law in Kemmerer and Evanston.

Q. He had an office there?

A. He had an office in Kemmerer, and part of the time he practiced law in Evanston.

Q. What was the talk you had with him; did he purport to belong to the Company in any way?

A. Why, he said we would have to give him a power of attorney for to act for us, that Mr. Whyte and they wouldn't—well, he couldn't do anything with Mr. Whyte and that—

534 Q. Oh, he was your attorney? A. Yes, sir.
Q. I am not talking about that; What I want to know is did you, personally, have any talk with anybody belonging to the Diamondville Coal & Coke Company? A. Yes, sir.
Q. Who was that?
A. I spoke with Tom Snedden about it.
Q. Now, was your brother present then? A. No, sir.
Q. You were alone?
A. I was alone. My brother, he told me to go ahead and try and get this here money out of it, or to bring suit if I couldn't get it any other way.
Q. You went to see Mr. Snedden? A. Yes, sir.
Q. What did he say?
A. He said that the Company couldn't give us the money, we done had the ground relinquished, and they had the land by this time bought up.
Q. In other words, you couldn't get the money because you had relinquished and they had got the land?
A. Well, that was the only way that I could see.
Q. That was what he said, was it?
A. No, sir, he never said about relinquishing it, but through their relinquishing of the ground he said that the Company would not give us the nine dollars an acre, but in the meantime they had bought it up with scrip or something.
Q. He said that they had?
A. Yes, he said that they had bought it up.
535 Q. Did you have any further talk about what they would give, if they wouldn't give you this money?
A. Yes, sir; they said they would give five hundred dollars.
Q. Who said?
A. Tom Snedden said the Company would give five hundred dollars.
Q. What was said about the contract that you had; did you talk about that?
A. Yes, I told him that the contract called for nine dollars an acre, and he said it would call for nine dollars an acre provided that we would give a title to it.
Q. That you could give a clear title to it? A. Yes, sir.
Q. What more did he say?
A. Well, that was about all, I believe that he did say, that I can recollect.
Q. Then, what did you do or what did he do?
A. Why, it just went along for two or three years before we could do anything; then, we just had to accept the five hundred dollars.
Q. You did accept that? A. Yes, sir.
Q. Who told you to go and get it? A. Tom Snedden.

Q. He told you to go and get the five hundred dollars?

A. He said it was left for us whenever we were ready to accept it, whilst of course, we had to give up getting this nine dollars an acre.

Q. When did he tell you that?

536 A. Oh, he told it to me several different times while I have been there.

Q. And you finally accepted it? A. Yes, sir.

Q. Did you go to the Company's office? A. Yes, sir.

Q. Well, what happened there?

A. Well, there was nothing at all happened any more than he took—they took and paid us the five hundred dollars.

Q. Who paid you the five hundred dollars?

A. Well, I should judge it was the Company; it was right in the Company's office. The clerk, Peterman, he was the clerk there.

Q. Did he pay you cash or check or what?

A. No, sir, he paid us in cash.

Q. Us, who do you mean?

A. That means the whole bunch, but it is me, of course.

Q. Were the others all present? A. Yes, sir.

Q. Which ones were there?

A. There was James Thompson and W. H. Brown.

Q. How much did he get?

A. He got five hundred dollars for his claim. There was W. H. Brown.

Q. What did he get?

A. Well, he got five hundred dollars, but I believe they kept it out for him in the office.

Q. Some debts, some obligations so that he did not get cash money? A. He didn't get the cash.

537 Q. Well, who else? A. Charles Aitken.

Q. That is your brother? A. Yes, sir.

Q. And yourself? A. Myself.

Q. There were four of you that got cash money and one didn't? A. Yes, sir.

Q. Did you see these others get the money?

A. Yes, sir.

Q. You heard the talk with them the same as you had it yourself?

A. Yes, we were all right there together, and they took and gave us the money.

Q. And were you all present when you relinquished the land, made out your relinquishment papers; were you all there together at that time? A. Yes, sir.

Q. Where were you then?

A. Who made out that paper or those papers for you?

A. The relinquishing papers?

A. Well, I dont mind the lawyer's name; it was a new lawyer that had just come there, and I couldn't tell just exactly what his name is now. He didn't stop very long around there.

Q. Who told you to go to him?

A. James Lees and James Thompson.

Cross-Examination

By Mr. Evans:

Q. How old did you say you are?

A. Twenty-seven on the 7th day of last March.

538 Q. Where do you live now?

A. I live in Kemerer.

Q. Have you lived there ever since you filed on this homestead?

A. No, sir, I was living in Diamondville, and I lived in Frontier.

Q. Well, you lived in and about that section?

A. Yes, in that section of country.

Q. When did you first go to Kemmerer?

A. Well, I came there when I was ten years old, on Twin Creek.

Q. There are coal lands at Twin Creek, too?

A. Yes, there was at that time; it is all shut down now.

Q. What did you do; what have you been doing in the years since you first came into the country?

A. Well, sir, I have been following up the mines. Once I bought some horses and then I have been following the horses through the summer time and working in the mines in the winter time.

Q. In the coal mines, you mean? A. Yes, sir.

Q. You are familiar, then, with coal ground and have been practically ever since you were ten years old?

A. Yes, sir.

Q. Mr. James Thompson that you mentioned is your uncle?

A. Yes, sir.

Q. Lees is what relation to you?

A. He is my brother in law.

Q. Married to your sister? A. Yes, sir.

539 Q. And Mr. Brown is what relation?

A. He is a brother in law.

Q. Married to another sister? A. Yes, sir.

Q. And Mr. Charles Aitken is your brother?

A. Yes, sir.

Q. Have you any relatives that made homestead entries there about that time, any more? A. No, sir.

Q. Just the five of you? A. Yes, four of us.

Q. Well, Thompson, Lees, your brother, Brown and yourself, five of you?

A. Yes, sir. Well, Jim Lees didn't make no homestead entry there at all.

Q. Oh, he didn't make any? A. No, sir.

Q. Mr. Aitken, you gave a description of the ground you filed on, I believe. A. Yes, sir.

Q. Is that correct? A. Yes, sir.

Q. How do you know it is correct?

A. Well, I have been on the ground off and on, you might say, all my lifetime.

Q. You are as positive of that as the rest of your testimony?

A. Yes, sir.

Q. Will you read that description to me again?

A. Yes, sir

540 Q. Where did you get this slip that you are reading from?

A. I took a copy of it.

Q. From what? A. From the filing papers.

Q. You have had it ever since? A. Yes, sir.

Q. You have had that ever since 1898, then?

A. Yes, sir. The west half of the northeast quarter and the east half of the northwest quarter of section 18, township 19 north, range 116 west.

Q. You have had that paper ever since 1898?

A. Yes, sir.

Q. This that you are using? A. Yes, sir.

Q. Where have you been carrying it?

A. I have had it in my trunk with other papers.

Q. Did your brother have a slip of that kind, too?

A. No, sir, we have them both here together on the same slip.

Q. Is your brother's on that slip, too?

Q. You have been reading your brother's description, haven't you; that is your brother's description instead of yours? A. No, sir.

Q. Are you positive of that? A. I know it is.

Q. Can you give your brother's description?

A. Yes, sir.

Q. Will you give it to me?

A. Yes, I will do that. The west half of the southeast quarter and the east half of the southwest quarter of section 18, township 19 north, range 116 west.

541 Q. Isn't that the piece you filed on? A. No, sir.

Q. You are positive of that? A. Yes, sir.

Q. Your name is James, isn't it? A. Yes, sir.

Q. How long have you known this land before you filed on it?
A. Well, I rode over it ever since I was a kid.
Q. Well, you had known it seven or eight years, anyway at the time you filed on it? A. Yes, sir.
Q. And you went over it immediately before you filed, did you not, looked over the ground? A. Yes, sir.
Q. And you took it up for grazing purposes?
A. Yes, sir.
Q. It was good grazing land, was it not?
A. Yes, sir.
Q. The same character of land that is used for grazing purposes, generally, over Wyoming? A. Yes, sir.
Q. And if you had water upon it, it would be good agricultural land, tillable land, would it not?
A. Yes, sir.
Q. Do you know a ranch on the Big Muddy, a mile or two or three from there? A. Yes, sir.
Q. About the same character of ground as that?
A. No, sir, it is not.
Q. What is the difference?
542 A. It is all a level country.
Q. What is? A. The ranch on Muddy.
Q. And this is in a valley there, isn't it? A. No, sir.
Q. On the hills?
A. It is partly on a hill and partly in that little valley.
Q. Well, outside of being level, is it about the same character of land as this Muddy ranch; outside of the conformation, that one is level, you say, and the other isn't?
A. Yes, sir.
Q. Outside of that it is about the same kind of land?
A. Yes, about the same kind of land provided there was water on it.
Q. Do they raise large crops of hay on this Muddy ranch?
A. No, sir, they don't raise very good crops on it; they raise crops on it, such as there is.
Q. It is used for a hay ranch?
A. Yes, for a hay ranch.
Q. When you filed here in the Land Office you signed the usual homestead papers, an application and a homestead affidavit and a non-mineral affidavit? A. Yes, sir.
Q. You were able to read at that time?
A. Yes, sir.
Q. In your non-mineral affidavit you stated that the land was non-mineral? A. Yes, sir.
Q. That was true, was it not? A. Yes, sir.
543 Q. No evidence of mineral or coal upon the land?
A. No, sir, there is no evidence that there is any coal nor any mineral of any kind on the land as I could see.

Q. And there is not today, is there?
A. No, sir, I couldn't see any on it today.
Q. How long since you have been over the land or down that way? A. I was over it here a couple of weeks ago.
Q. Is it in the same condition now as it was when you filed on it? A. Yes, sir.
Q. Not an evidence anywhere of coal or any mineral on it?
A. No, sir.
Q. Now, you also made the usual affidavit at that time that you were taking it up for yourself in good faith, intending to cultivate it and so forth? A. Yes, sir.
Q. That was all true? A. Yes, sir.
Q. You were eighteen years old at the time, were you not?
A. No, sir.
Q. How old were you? A. I was twenty-two years old.
Q. With whom were you living at that time?
A. I was stopping with my folks.
Q. Your father was living? A. Yes, sir.
Q. You were boarding at home? A. Yes, sir.
Q. Your father was the head of the family?
A. Yes sir.
544 Q. You were twenty-seven years old in March of this year? A. Last year.
Q. 1907?
A. I said March 7th, last, which would be last year.
Q. That would be 1907? A. 1907, yes, sir.
Q. And you made this filing in 1898? A. Yes, sir.
Q. You think you were twenty-two years old then?
A. Yes, sir.
Q. Do you think nine from twenty-seven leaves twenty-two?
A. No, it would be twenty-one.
Q. Now, you made the usual affidavit, then, that you were at the time you made the filing, and you swore that you were over twenty-one years of age, or that you were the head of a family. You were not the head of a family?
A. No, sir.
Q. Then, you must have been twenty-one years of age if the affidavit was true?
A. That I am not the head of a family.
Q. You were not the head of a family then?
A. I am not the head of a family today.
Q. If the affidavit were true, you must have been twenty-one years old then?
Q. And you are positive that you were twenty-seven last March 1907? A. Yes, I was twenty-seven.
Q. Now, how soon after your filing was this cabin built on your place?
A. It was built along about Christmas time in the same year.

Q. You filed in July?

545 A. Yes, in July, and it was through the winter time that the cabin was built?

Q. When was this conversation with Thompson and Lees about the relinquishment contract; when did you have that talk first?

A. Oh, it was just about a month or so till the time that we relinquished; I couldn't tell you just exactly. It was about that time.

Q. Only a month or so?

A. It was about a month, somewhere along that, before we relinquished.

Q. About a month before you relinquished?

A. Yes, sir.

Q. Now, that was the first you had heard of any sale of your ground, any disposal of it in the way of relinquishment, or in any way, was it?

A. The first that I had heard?

Q. Yes. A. No, sir.

Q. When was the first, and what was the conversation and with whom?

A. We were offered nine dollars an acre before that, for to take hold and get a patent for it.

Q. How long before the relinquishment talk was this offer made?

A. Oh, it must have been a couple or three months, somewhere along there; I couldn't tell you just exactly about the time; it was somewhere in there, about that time.

Q. Was it two or three months or a month or two after you built your house, then? A. Yes, sir.

546 Q. Where was this conversation about you being offered nine dollars an acre after patent; where was it held?

A. To me?

Q. Well, it was with you, wasn't it? A. No, sir.

Q. You were not present?

A. No, sir; I said I was not present on my examination.

Q. Didn't you tell Mr. Birch in your direct examination—

A. I said that I was present in one.

Q. Which one?

A. The one talking with Mr. Whyte there.

Q. Didn't you tell Mr. Birch that you were present at a conversation where Mr. Burrell offered you nine dollars an acre if you would prove up on the ground?

A. Yes, I was present one time with him, but not when we were offered nine dollars an acre. He offered nine dollars an acre before we made this here statement.

Q. I want to understand you clearly. The Burrell conversation that you were present at was when?

A. It was after, shortly after we built the houses, that Thompson and Brown built them.

Q. What did Burrell say in that conversation?

A. Burrell just said that he would take and give nine dollars an acre if we could take and patent the ground.

Q. He would give it. Where was that?

A. That was in the Daly Hotel.

Q. At Diamondville? A. Yes, sir.

Q. Who were present?

A. There were Thompson, Lees and myself at that time, I believe was all.

547 Q. Did you accept that proposition? A. No, sir.

Q. What did you say, or what was said on the part of you and your relatives there?

A. Why, they didn't accept it at the time, but along in the spring following they took—Mr. Burrell, before he left, he took and made an agreement for to take and relinquish the ground, that was it, and Mr. Whyte finished it up.

Q. I know, but what did you say or what did Thompson say or what did Lees say when Mr. Burrell made you this offer at the Daly Hotel, when Mr. Burrell said he would pay you nine dollars an acre after you had patented your ground; what was said in response to that?

A. Well, I couldn't mind all that was said.

Q. Did you accept it? A. No, sir.

Q. It was in that conversation, I believe you stated, that Mr. Burrell told you he could not do that because it would be perpetrating a fraud on the Government? A. Yes, sir.

Q. Well, as I understand the conversation, Burrell said: "I will give you nine dollars an acre when you prove up on your ground, but I can not give it to you, because it would be commiting a fraud on the Government." Is that about the conversation? A. Yes, sir.

Q. When was the next conversation that you were present with Mr. Burrell?

A. I wasn't present at any more.

Q. That is the only one?

548 A. That is the only one, yes, sir.

Q. You were not present at any relinquishment conversation, were you?

A. With Mr. Burrell, no, sir. Mr. Whyte was present at the relinquishment; it was not Mr. Burrell, at all.

Q. Now, Mr. Aitken, where was this meeting wherein you say a paper that you saw, a contract or a copy of a contract with Burrell—when was that with reference to the time that you relinquished? A. How?

Q. How long before you relinquished was this meeting with Thompson and Lees, when Lees read this paper to you?

A. It was before I relinquished.

Q. Certainly, but how long before?

A. Oh, I dont know just how long; I dont know exactly what time it was?

[A.] A month or two or three months?

A. Well, along about a month, I guess; about that.

Q. Now, was that a contract that had the signatures on it, or did it pretend to be a copy of a contract?

A. I believe it was pretended to be a copy of the contract.

Q. Did you look at it yourself, or simply stand back and hear it read?

A. No, they just took and read it over.

Q. Tell me all that you can remember of it.

A. Well, I just couldn't tell you exactly the contract. A man couldn't hardly and write a contract after it has been gone several years and only heard it read off.

Q. Well, you told Mr. Birch some of the contents; tell me now.

549 A. Well, the contract called for nine dollars an acre, with Mr. Burrell's signature to it.

Q. On what condition?

A. That we would take and plow up—that we would take and patent the ground.

Q. That if you would patent the ground, they would pay you nine dollars an acre? A. Yes, sir.

Q. It didn't say anything about relinquishing?

A. No, sir, not at that time.

Q. I am talking now about the copy of this contract that you heard read. You said there was nothing in it, as I understood, about relinquishment?

A. In the contract, no, sir, not at that time; not to my knowledge. It might have been in there about relinquishment, too, but I couldn't tell you now whether it was or not.

Q. But you do remember that it said you were to be paid nine dollars an acre when you proved up on the ground?

A. Yes, sir.

Q. If you proved up on it, there would not be any relinquishment?

A. No, there could not be any relinquishment if we proved up on it.

Q. Then, there could not have been anything in this contract about relinquishing?

A. Oh, I can't go back and take and repeat a whole lot of some copy.

Q. You never saw or heard read that copy of the contract again, did you? A. No, sir.

550 Q. That was the only time?

A. That was the only time, but they said they was going to take and have it changed; I don't know whether they did or not—to have that relinquishment in it.

Q. Thompson and Lees said they were going to have it changed? A. Yes, sir.

Q. Who was present when this was read?

A. W. H. Brown.

Q. He is the man who testified here a little while ago?

A. Yes, sir; and James Thompson and James Lees and myself, and I believe my mother was present, but I would not swear to it.

Q. Where was that?

A. It was right in our house, in my father's house.

Q. At Kemmerer? A. No, sir, in Diamondville.

Q. Now, you never saw Mr. Whyte at all about this, did you? A. Yes, sir.

Q. When? A. I seen him the day we relinquished it.

[A.] That was June 17th, 1899? A. Yes, sir.

Q. You are positive of that?

A. It was either that same day or the day before; it was some time within a couple or three days; right there.

Q. Where did you see him?

A. I seen him right there in Diamondville.

Q. And who were present?

A. There was James Thompson, James Lees and Charles Aitken, W. H. Brown and myself.

551 Q. And what was said?

A. Well, they was talking about the relinquishment, and Mr. Whyte said that he had took and had this lawyer take and fix up the relinquishment papers for us, and all that we had to do was to sign them.

Q. Was that all he said? A. Yes, sir.

Q. Did he say anything about paying you?

A. Not that I remember.

Q. Did he ever in your presence say anything about paying you when you were present?

A. No, sir he never said about paying me when I was present.

Q. Don't you know that Mr. Whyte was not in Diamondville or that country at all that year before July, 1899?

A. No, but I think he was.

Q. Are you positive he was?

A. I know he was, yes, sir.

Q. Mr. Snedden told you or spoke about you not making a living on the ground. Was that in conversation or just your impression? You told Judge Birch something about somebody saying you couldn't make a living on the ground.

A. That was Mr. Burrell, when we took—when it came to the relinquishment, I believe it was Mr.—yes, Mr. Burrell and Tom Snedden both told us that; they was both present at the time.

Q. How many conversations do you remember being present where Mr. Burrell was, about this thing?

A. I was only in the office with him once.

Q. Was this in the office where he spoke about your making a living on the ground?

552 A. Yes, sir, and he said we couldn't make anything out of it by taking and holding on to it.

Q. That was not in that conversation in the Daly Hotel; that was another one?

A. No, sir, that was the same one; I was only speaking to him once.

Q. Was his office in the Daly Hotel?

A. Yes, sir. He stayed in the office. He had an office in the store, in the mine office, but this was his room, rather than his office. He never did have an office in the hotel; it was always a room he had there. I don't believe they keep offices there.

Q. He wanted you to relinquish because he told you you couldn't make a living on the ground? A. Yes, sir.

Q. Didn't you tell me a little while ago that he did not say conversation was about paying you nine dollars an acre if you proved up?

A. Yes, he said he would pay us nine dollars an acre if we proved up.

Q. And he talked about relinquishment, too?

A. Yes, sir.

Q. Didn't you tell me a while ago that he did not say anything about relinquishing in that conversation? Didn't you tell Judge Birch who sent word to you through Jim Lees that you couldn't make a living on the ground?

A. He sent a whole lot of words to us.

Q. Isn't that what you told Judge Birch?

A. Both Mr. Whyte and Mr. Burrell.

Q. Mr. Burrell said the same thing?

553 A. That was where we done our business principally; there was only the once where all of us was present all together.

Q. You have not answered my question yet; I wish you would answer it. Do you recall being asked some questions by Judge Birch here a few minutes ago? A. I recall.

Q. Do you remember being examined by Judge Birch here a few minutes ago? A. Yes, sir.

Q. Did you tell him on that examination that this making a living proposition was this, that Mr. Whyte sent word to you through Jim Lees that you couldn't live on the ground?

A. Well, he took and sent word—

Q. Did you tell that to Judge Birch here a few minutes ago?

A. Yes, sir.

Q. Now, you say it was in a conversation with Burrell at the Daly Hotel?

A. Well, I was the only one that was present, and he had to go and take the news to the balance of them to see whether they was going to accept this. I told you before that they took and done all the business through James Lees and James Thompson.

Q. You were the only one present when the conversation occurred that you are talking about now?

A. I was the only one present at the conversation with James Lees and James Thompson, if you understand it right. You don't want to try and make a fool out of me at all. You can understand, I think, about as well as I can.

Q. Certainly I wouldn't undertake to do that. Now, let's get at it. Did Mr. Whyte send word to you through Lees that you couldn't make a living on the ground?

554 A. Yes, sir.

Q Did Mr. Burrell tell you the same thing in this conversation at the Daly Hotel?

A. He told it to me the same thing in conversation, and besides my brother in law and James Thompson was present.

Q. Mr. Burrell told you?

A. Yes, and then my brother in law and James Thompson told me in front of the balance of them; I was present the next time and they told it.

Q. You were present the next time

A. When James Thompson and James Lees told it to W. H. Brown and Charles Aitken and myself.

Q. Now, just about the way, this might occur now—this is just about the way you recall it about all these conversations and everything?

A. I gave it just about as near as I can recollect about the conversations. There was a whole lot of conversations that I couldn't mind, but anything I can mind, it is just about like that.

Q. Now, you were paid five hundred dollars for that?

A. Yes, sir.

Q. You should have been paid fourteen hundred and forty dollars? A. Fourteen hundred and forty dollars.

Q. They are still owing you the balance?

A. Yes, sir.

Q. You never gave them any receipt in full or anything of that kind?

A. Yes, we had to take and sign our names when we received the five hundred dollars.

555 Q. Didn't you tell Judge Birch that you didn't sign any receipt at that time at all?

A. No, sir; he never asked me about any receipt.

Q. Now, Thompson and Brown built your house?

A. Yes, sir.

Q. Did you ever pay them? A. No, sir.

Q. Did you pay them when you finally got your money?

A. No, sir.

Q. Did you tell Judge Birch that you did, when he first asked you?

A. No, sir, I told Judge Birch that I paid them for my filing that they gave me the money for my filing.

Q. Yes, I guess you are right about that. But that still leaves the house, you never did pay them anything for that?

A. No, sir.

Q. At the time that house was built you had this homestead in good faith? A. Yes, sir.

Q. You intended to take it up as grazing land, agricultural land? A. Yes, sir.

Q. Did you ever stop to think that it was queer that Thompson and Brown were building houses that way on your homestead? A. I know they was building it.

Q. Did that seem queer to you at all?

A. No, sir, it didn't.

Q. It was your own property; no one else had anything to do with it; still they built your house?

556 A. Yes, sir.

Q. You thought there was nothing strange about that at all?

A. Anybody can take and build a house if they want to.

Q. Without your paying for it? A. Yes, sir.

Q. You saw nothing strange about that? A. No, sir.

Q. Are they monied men? A. No, sir.

Q. You said the Company, I believe, furnished the lumber?

A. Yes, sir.

Q. Or it was hauled?

A. It was hauled from the Company lumber yard in Diamondville.

Q. The Company was engaged in selling lumber then, wasn't it? A. Yes, sir.

Q. And had the only lumber yard in Diamondville?

A. Yes, sir.

Q. Now, you employed Mr. Salmon as your attorney, to try and collect this money for you, didn't you?

A. To collect this money, exactly—but we gave him a power of attorney to collect it.

Q. Now, he needed a power of attorney to represent you in the matter? A. Yes, sir.

Q. You had a conversation with Mr. Snedden about this same matter? A. Yes, sir.

Q. Tell us again what he said.

A. How do you mean what Mr. Snedden said? I am
557 talking to him every other day or two when I am around town. I could tell you all about what Snedden says at different times, if that is all you want, but I don't know that you want that.

Q. I am not inquiring about your every day conversations; I am talking about these homestead conversations; you said you had a conversation with Snedden in which he declined to pay you nine dollars an acre.

A. No, sir, I said that Mr. Snedden said the Company would not give us nine dollars an acre, but all that they would give us for relinquishment of the ground was five hundred dollars; that is just my words, and I believe this man has got it here, if you want to run your memory in.

Q. Did he tell you in that conversation that the land was not worth it?

A. That the land wasn't worth nine dollars an acre, no, sir.

Q. What reason did he give?

A. He didn't give no reason that time; just said that the Company couldn't give no nine dollars an acre for it and he said that whenever we were ready to accept five hundred dollars that they was ready to pay us.

Q. Now, how long was that before you got the five hundred dollars?

Q. I couldn't just exactly tell you how long it was before.

Q. Who was present at that conversation?

A. There was nobody present.

Q. Nobody but you and Snedden?

A. Nobody but me and Snedden.

Q. That conversation was somewhere close to the time that you got that money, wasn't it? A. No, sir.

558 Q. A year or two before?

A. Well, it went along for, I should judge, a couple of years before we got the money; may be a little longer than that.

Redirect Examination

By Mr. Birch:

Q. Mr. Aitken, at the time this homestead house or shack or whatever it was was built, you knew the Company was furnishing the lumber, didn't you?

A. I knew it was coming from the Company lumber yard, yes, sir.

Q. And you knew that they were furnishing the nails from the store and the windows and doors and frames and all that?

A. Yes. sir. The doors was made out of the lumber, and the frames was made; we didn't have no regular sash, of course.

Q. You understood perfectly that Lees and Thompson didn't have the money to pay those bills, didn't you? A. Yes, sir.

Q. You don't know whether they ever did pay the bills for the lumber or not? A. No, sir, I don't know anything about it.

Q. Now, that was just after you took it?

A. I guess they would probably pay them if they could, for it is a general rule that when a man takes and runs a bill, if he has got anything, they make him pay it.

Q. You think they would have charged Thompson and Lees, if they intended to make them pay it, don't you?

A. This lumber?

559 Mr. Evans: We object to this as leading.

The Witness: No, I don't know as it was charged to Mr. Lees or to Mr. Thompson; I don't think it was. I couldn't just exactly tell you how the thing was.

Q. Didn't you understand, then, from that fact that the Company was interested in that land in getting that land from you?

A. Well, when they took and furnished the house?

Q. Yes, when they furnished the lumber and all that?

A. Well, it was not—

Q. Wasn't there an understanding at that time, an understanding between the Company, or you in dealing with the Company or its agents that they ultimately expected to get this land—I mean at the time the house was being built—that the lumber and stuff was being furnished to put up that house?

A. Why, we had to give James Lees and James Thompson —we had made a contract with them to take and sell the ground if they could.

Q. And you didn't know at that time that they had had any talk with the Company at all, through its agents?

A. No, sir.

Q. You didn't know that? A. No, sir.

Q. You didn't know that the Company had authorized Lees and Thompson to deal with you for this land?

A. To pay me for the land?

Q. No, to deal with you; to get the land from you?

A. Well, they could have been authorized at the time.

560 I believe that there was some talk with Burrell for to take and build the houses, but I couldn't just tell you how it was. I believe it was stated in this here contract that I was referring to; I couldn't be sure; that he was to take and pay all bills on the place.

Q. Very well. But that contract wasn't entered into, was it, until after the houses were built?

A. After the houses was built?

Q. Yes.

A. Well, I couldn't tell you whether the houses was built before this contract was entered into or not.

Recross Examination

By Mr. Evans:

Q. Mr. Aitken, are you positive that your house was built about Christmas time? A. Yes, sir.

Q. And you only had that ground one Christmas, didn't you, and that was in 1898? A. Yes, sir.

Q. And you told me before that the contract—that the copy of this contract that you heard read was about a month before you made your relinquishment.

A. It was somewhere around there, I say. I think if you recollect I said it was along may be a month or two or three months, probably; between two and three months I said, if I remember right.

Q. That would still be two or three months after Christmas, wouldn't it?

A. Well, I couldn't tell you whether it would be two

561 or three months after Christmas or not.

Q. Well, you relinquished in June?

A. It was along—yes, I relinquished the 17th day of June.

Q. Now, about getting this lumber and stuff, all that you know is that the lumber was gotten from the Company yard at Diamondville? A. Yes, sir.

Q. The Company was the only lumber merchants there?

A. Yes, sir.

Q. The nails, etc, were gotten at the Company store?

A. Yes, sir.

Q. That is the only big store there? A. Yes, sir.

Q. That is the extent of your knowledge about that?

A. Yes, sir.

Q. You know nothing about who [is] was charged to or who paid for it or anything else, of your own knowledge?

A. No, sir.

(Witness excused.)

562 George Haddock, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:

Q. State your name. A. George Haddock.
Q. Where do you live? A. Wardboro, Idaho.
Q. What is your business? A. Farming.
Q. Did you ever live in Uintah County, Wyoming?
A. Yes, sir.
Q. When?
A. I lived there six years ago last September, according to my recollection.
Q. Where in Uintah County did you live?
A. In Diamondville.
Q. What were you doing at Diamondville?
A. Working for the Diamond Coal & Coke Company.
Q. How long did you work for the Diamond Coal & Coke Company? A. In the neighborhood of four years.
Q. Were you working there in 1898? A. Yes, sir.
Q. Did you enter any homestead? A. Yes, sir.
Q. Who for?
A. For the Diamond Coal & Coke Company.
563 Q. What lands did you enter?
A. Lands in section 12, township 17.
Q. Can you point them out on the map?

Mr. Kelley: We make the same objection to the evidence of this witness as to homesteads.

Q. What township; can you point it out on the map?
A. I think I could.
Q. Just do so, then. A. There is the entry.

Mr. Burke: The Witness points to section 12, township 19 north, range 117 west.

Q. What part of the section was it?
A. The north half of the southeast quarter and the north half of the southwest quarter.
Q. It is the north half of the south half of the section?
A. Yes, sir.
Q. Do you remember the time you made that entry?
A. Some time in the month of July.
Q. What year? A. 1898.
Q. How came you to make that entry; what led up to it?

A. I was led to understand that others were making entries of a similar nature, and that there was a chance—

Q. What for?

A. For the Diamond Coal & Coke Company.

Q. And did you have any talk with anybody that was
564 connected with the Diamond Coal & Coke Company in relation to the matter?

Mr. Evans: The same objection that we made before as to these homestead entries and also as to conversations.

Q. Who was the superintendent of the Company at that time? A. Mr. Snedden.

Q. Thomas Snedden? A. Thomas Snedden.

Q. Did you have a talk with him about it?

A. Yes, sir.

Q. When and where?

A. I dont remember just when; I think we had a short conversation on what they call crossing the flats from the No. 1 mine over to where the Company's office is.

Q. Then, what was that conversation as near as you can give it.

A. The conversation as near as I can remember was very brief, and he just told me that the boys were going to Evanston in a day or two, and to be ready to go with them.

Q. Did he tell you what he wanted you to do in Evanston?

A. He told me they were going over to attend to that business pertaining to the lands out south of here.

Q. Had you had any conversation with him previous to that about it? A. Not directly.

Q. You had had a conversation with somebody, had you?

A. Yes, sir.

Q. Who was that somebody?

A. I think it was a relative of mine; it was an uncle of mine, Mr. Penman.

565 Q. He was proceeding on the theory that somebody had talked to you about it, was he; is that it?

Mr. Kelley: That is objected to as leading.

A. Yes, sir.

Q. Now, have you given all of that conversation that you had with Mr. Snedden at that time?

A. As near as I can remember, yes, sir.

Q. Then, what did you do about going over to Evanston?

A. I came over with them.

Q. With whom?

A. Mr. Ernest Stevenson, Mr. Charles Gove and James McDonald.

Q. What did you do when you got here?
A. I filed on this land.
Q. Who made up the papers?
A. I dont know the man's name; some attorney, I suppose.
Q. Is that the gentleman sitting back of the attorneys here, Mr. Ausherman, the gentleman with the glasses?
A. I couldn't say.
Q. Was it at the Land Office that you filed up the papers or was it at this attorney's office.
A. If I remember correctly, the papers were made out at the attorney's office.
Q. And then where did you go to file?
A. We went to the Land Office and filed them.
Q. Who paid the fees?
A. Mr. Stevenson, if I remember correctly.
566 Q. For you all; he paid the fees for you all, did he?
A. Yes, sir.
Q. What did he do in regard to the other people; did they make any entries, Gove and the others?
A. It is my understanding that they did.
Q. Who paid the fees for those entries?
A. Mr. Stevenson, I believe.
Q. Did you ever repay for those fees? A. No, sir.
Q. Who paid the expenses of the trip? A. Mr. Stevenson.
Q. Whose team did you have?
A. Mr. Amoss's team.
Q. Did Amoss make an entry at that time, too?
A. No, I think not.
Q. Now, what did you do in the way of improving your homestead entry; did you do anything? A. No, sir.
Q. Did you ever fence it? A. No, sir.
Q. Did you ever plow it? A. No, sir.
Q. Did you ever cultivate it? A. No, sir.
Q. Did you sow any grass seed on it? A. No, sir.
Q. Farm it any way? A. No, sir.
Q. Graze it? A. No, sir.
567 [—] Build any buildings on it?
A. No, sir, I didn't.
Q. Did anybody?
A. There was a house built on it, yes.
Q. Who built the house?
A. My understanding is that Mr. Dodson did the work.
Q. Who furnished the lumber?
A. The Diamond Coal & Coke Company, was my understanding.
Q. And the nails?

A. They furnished the material.
Q. What became of the house, do you know?
A. I dont know.
Q. Did you ever take it away? A. No, sir.
Q. Did you ever live there? A. No, sir.
Q. What became of that homestead?
A. I relinquished it.
[A.] In when?
A. In June, if I remember right, of the following year.
Q. How came you to relinquish it?
A. I had a talk with Mr. Snedden, and he told me he didn't think I could make final proof on it.
Q. What else did he tell you?
A. And he thought the best thing to do would be to relinquish.
Q. Was it the understanding originally that you would prove up as a homestead and then convey to him; was that the original understanding? A. Yes, sir.
568 Q. Then, you say you had a talk with him in which he said he didn't think you could prove up on it?
A. Yes, sir.
Q. And what did he ask you to do about it?
A. Relinquish.
Q. Did he give you anything for doing that?
A. Yes, sir.
Q. How much? A. Six hundred dollars.
Q. When did you get that?
A. I don't remember the date; it was some time later in the year.
Q. Where did you get it? A. At the Company's office.
Q. Who gave it to you?
A. I don't remember the gentleman's name; one of the clerks.
Q. How did you get it; how did it happen to be paid over to you?
A. Mr. Snedden told me that if I would go down to the office that night that they would settle with me on that land deal.
Q. Who was there when you got there, was Snedden?
A. No, sir, I don't remember that he was in the office.
Q. Did you bring up the matter when you came into the office? A. No, sir.
Q. Who did? A. One of the clerks.
Q. One of the clerks for whom?
A. For the Diamond Coal & Coke Company.
Q. Do you remember his name?
A. No, sir, I do not.
569 Q. Was there any check; did you have any written order or anything of that kind?

A. No, sir, he paid me the money; I don't remember of any check.

Q. Now, was there ever anything said to you by Snedden as to why he wanted that land?

Mr. Kelley: Objected to as incompetent, irrelevant and immaterial to bind the defendant Company in any way.

Mr. Evans: I understand it is all going in subject to our objection, on that?

Mr. Burke: Yes, sir.

A. I don't remember any personal conversation with Mr. Snedden as to why he wanted us to do that.

Q. Did Stevenson say anything to you as to why the Company wanted that land?

A. Well, the general understanding with us was that they wanted to secure it as coal land.

Q. That was the general understanding and knowledge?

Mr. Kelley: We move to strike out the last answer on the ground that it is not responsive.

Q. What was the general understanding and knowledge in relation as to whether that was supposed to be coal land?

A. The understanding was general that it was supposed
570 to be coal land.

Q. Did you ever look for coal in that vicinity?

A. Yes, sir.

Q. Did you do any prospecting? A. Yes, sir.

Q. Where?

A. About a mile or a mile and a half, if I remember right, east of where I made the location.

Q. Whom for did you do that?

A. I did it under the direction of Mr. Snedden.

Q. And from there north did you prospect?

A. Yes, sir.

Q. What did you find as to there being a defined vein of coal or out crop from here running up toward Diamondville?

A. At one or two points we found coal.

Q. Did you find coal at Glencoe?

A. Yes, sir.

Q. You are the man who opened that mine, aren't you?

A. I was there at the first opening of it and helped to open the first excavation there.

Q. And the fact is, isn't it, that there is a pretty well defined vein running along there in a north by a little easterly and south by a little westerly course? A. Yes, sir.

Q. Are you acquainted with the mines at Diamondville?

A. To some extent, yes, sir.

Q. Do you know as to how far they are worked in the west?
A. Not definitely; I never worked inside of the mines.
Q. Your work was outside? A. Yes, sir.
571 Q. Now, when was it that you had prospected there at Glencoe and discovered that coal there?
A. I don't know just what time of the year; I don't remember.
Q. Was it prior to your making this homestead entry?
A. I believe it was about that time.
Q. Had you made these prospects before you made the entry?
A. Some of them, I believe.
Q. What do you know outside of your prospecting as to whether Mr. Snedden or the Diamond Coal & Coke Company had prospecting work done there prior to that time along on that outcropping or vein? A. I don't know.
Q. Your knowledge is confined to what you did for them?
A. Yes, sir.
Q. Did you know of any contract with Burrell?
A. Not personally, no, sir.
Q. Have you had any talk with Mr. Burrell about any contract he had with Lees and Thompson? A. No, sir.
Q. You had no dealings with Lees and Thompson, then?
A. No, sir.
Q. Your dealings were entirely with Mr. Snedden and Mr. Stevenson, were they, in relation to the homestead entry?
A. Yes, sir.

Cross-examination

By Mr. Kelley:
Q. When did you move to Diamondville?
A. I came to Diamondville, I believe, in March of 1898, if I remember right.
572 Q. How long did you live there?
I lived there in the neighborhood of four years.
Q. Till about March, 1902? A. It was September, 1901.
Q. You left there in September, 1901?
A. I think that is the date, as near as I can remember.
Q. When you left there where did you go?
A. I went to Wardboro, Idaho.
Q. You still stay there? A. Yes, sir.
Q. Who subpoenaed you to attend this trial?
A. A man by the name of Brian.
Q. When was it? A. Last Friday morning.
Q. Do you know who Brian is? A. No, sir.
Q. Did you ever see him before? A. No, sir.
Q. Who did he tell you he was? A. He didn't tell me.
Q. You had no conversation with any one connected with the case till you came here, did you? A. No, sir.

Q. You were working for the Diamond Coal & Coke Company in the year, 1898? A. Yes, sir.

Q. And some time during the summer you made a homestead entry on section 12, township 19, range 116? A. Yes, sir.

Q. Is that the place?

573 A. Yes, sir.

Q. Were you familiar at all with the ground at that time? A. No, sir, any more than I had been over it.

Q. You had been over it? A. Yes, sir.

Q. How often?

A. I don't know how often. I had been out hunting chickens there a time or two and had ridden over it.

Q. Any other purpose than hunting chickens?

A. Oh, I had just went out on one occasion, prospecting there.

Q. You never had any conversation with Mr. Snedden prior to the time that he told you the boys were going down to Evanston in a day or two? A. Not direct.

Q. You prospected some on section 12? A. No, sir.

Q. I thought you said you did some prospecting there once or twice?

A. I said about a mile or a mile and a half east from there.

Q. You never had done any prospecting on section 12?

A. No, sir.

Q. You never did any at any time?

A. No, I never did any on section 12.

Q. Why?

A. Because I was working for the Diamond Coal & Coke Company.

Q. You were prospecting for them and not for yourself?

A. No, sir.

Q. And you never saw any coal on section 12, did you?

574 A. No, sir.

Q. It was not any closer than a mile and a half east that you know anything about? A. Not to my knowledge.

Q. And when you saw Snedden what did he tell you, prior to your trip to Evanston? A. When I saw him?

Q. Yes, when you had this talk with him up in Diamondville.

A. He told me to be ready to go over, that the boys were going.

Q. You didn't know what he was talking about, did you?

A. Yes, I did.

Q. You had had some talk with him prior to that?

A. With my uncle, Mr. Penman, and others, who, I understood, were going over.

Q. How old were you then?

A. I was about twenty-six years old.

Q. Could you read and write? A. Yes, sir.

Q. You came down to Evanston? A. Yes, sir.

Q. You say it was your understanding when you left there to come down, that you were going to make this homestead entry? A. Yes, sir.

Q. You say it was your understanding that you were going to make it for the Diamond Coal & Coke Company?

A. Yes, sir.

Q. You say it was your understanding that you were going to take it up as coal land? A. No, sir.

575 Q. That you were taking it for coal purposes?

A. That was the understanding, generally, that that was what the Company wanted.

Q. Was that your understanding? A. Yes, sir.

Q. When you came down here you made out your application.

A. No, I think the attorney made out the application.

Q. You were presented with certain papers?

A. Yes, sir.

Q. Which you signed? A. Yes, sir.

Q. You read them? A. Yes, sir.

Q. And appreciated and fully understood them?

A. I don't know that I fully understood them.

Q. Did you know that you were deliberately lying according to the statement that you were making here under oath, when you signed the non-mineral affidavit at the time you filed your homestead? A. No, sir.

Q. Did you know that you were lying if you signed a statement that you were taking this land for your own purposes and not for the benefit of any other person or corporation?

A. Yes, sir.

Q. You knew you were lying; you knew that you were swearing to a lie?

A. I knew that I did not understand at the time what they meant, what the papers were.

Q. You understood English? A. Yes, sir.

576 Q. Where were you raised?

A. I was raised in Idaho.

Q. You are not a foreigner? A. No, sir.

Q. And you mean to tell us now that you did not understand the following language: "That my said application is honestly and in good faith made for the purpose of actual settlement." You didn't understand that? A. In a degree, yes, sir.

Q. Which part of it didn't you understand?

A. I don't know anything specific that I did not understand.

Q. You fully appreciate and and comprehend the use of the English contained in that sentence, do you not?

A. I would not say that I fully understood it.

Q. Then, you don't fully understand what is meant by this: "That my application is honestly and in good faith made for the purpose of actual settlement." You don't understand that fully, do you? A. I think I understand it pretty well.

Q. You understand it well enough to know that you were lying, if you did not actually intend to settle down on this land yourself, didn't you? A. Yes, sir.

Q. You also knew and fully appreciated and comprehended the following language: "And not for the benefit of any other person, persons or corporation." You understood that, didn't you? A. Yes, sir.

Q. Fully and completely and sufficiently to know that you were deliberately lying if it was not so? A. Yes, sir.

577 Q. And at that time you also signed an affidavit that contained a statement that you intended faithfully and honestly to cultivate this land, didn't you? A. Yes, sir.

Q. And you understood that? A. Yes, sir.

Q. And you knew that you were lying when you made that statement? A. I expected to do some cultivation.

Q. You did? A. Yes, sir.

Q. But you didn't expect to acquire title from the United States Government, did you, for your own self?

A. No, sir.

Q. And you knew that you were lying when you made such a statement, didn't you?

A. Yes, sir, that is I knew—

Q. Now, do you understand the nature of an oath?

A. In a degree, I do.

Q. Have you any respect for the obligation of an oath?

A. Yes, sir.

Q. And nothwithstanding, your veneration and respect for the obligation of an oath, you had no hesitation about wilfully and deliberately lying, did you?

A. I had some hesitation, yes, sir.

Q. But it was not sufficient hesitation to persuade you from not doing so, was it?

A. No, sir. I thought I had gone rather too far, and I felt at the time—

Q. You had not done anything except to talk to your

578 Uncle Penman?

A. I had come over here and paid my expenses and there was my wages and—

Q. So you would perjure yourself for your expenses from Diamondville to Evanston and your wages for the day you were making your trip?

A. I did not realize that I would perjure myself; I told you I didn't understand what I had to sign until that time—

Q. You understood when you did sign it?

A. Why, I did read it.

Q. Well, all right, Mr. Haddock. You understand that you are under oath now, do you, also? A. Yes, sir.

Q. You are not perjuring yourself at the present time, are you? A. Not that I know of.

Q. You would not be sure about it, would you?

A. Why, I don't think that I am.

Q. Now, when you had this conversation with Snedden, about what time of year was it?

A. I think it was in July, as I said.

Q. You never had any conversation with him prior to that time, had you? A. No definite, personal conversation.

Q. You never had any definite, personal conversation with him prior to the time of this deal, did you? A. No, sir.

Q. Then, you did not get the understanding that the object of these homesteads was for the benefit of the Company in acquiring land from Snedden, did you?

579 A. Not directly.

Q. Did you indirectly? A. Yes, sir.

Q. Through whom?

A. Through these other parties that were entering land.

Q. Who?

A. Mr. Penman and Mr. Fearn and Mr. Amoss and others.

Q. Then, all you knew about it was what Penman and Fearn and some of the others told you?

A. Not altogether. Mr. Snedden said at that time—

Q. I said prior to this time?

A. No, not prior to that time.

Q. Prior to that time you had absolutely no information from Snedden except in this roundabout way? A. No, sir.

Q. Now, then, at that time this country down on the Cumberland branch was wholly undeveloped? A. Yes, sir.

Q. And about that time you say you did some prospecting?

A. Yes, sir.

Q. Was it before or after?

A. I couldn't say definitely.

Q. Well, trying your best to tell the truth, what is your best recollection about the matter?

A. I think we had been working on the north there near Glencoe some little time before we came over there that time.

Q. You would not be sure about that?

A. No, sir, I would not.

Q. Who was with you?

A. You mean while prospecting?

580 Q. Yes, prospecting.

A. There was Mr. Amoss and Mr. Fearn and Mr. Snedden.

Q. This prospecting consisted of going along the outcrop and trying to pick out places which looked as though there might be some coal in the vein, didn't it? A. Yes, sir.

Q. How many holes did you open altogether along the line of that outcrop? A. I don't remember.

Q. Had you opened up any east of section 12 at that time?

A. I think not; I don't remember.

Q. You don't remember. As a matter of fact, you had never opened up any that looked as though there might be coal south of Glencoe, did you?

A. I believe there was one place just a little south of Glencoe.

Q. You are familiar with the vein, as I understand it; you worked when they opened up the Glencoe mine? A. Yes, sir.

Q. That is No. 4 mine, isn't it? A. I think so.

Q. And prior to that time you had done considerable prospecting for the Company along that outcrop?

A. I had done some.

Q. And there was one place a little south of Glencoe where it looked as though there might possibly be some coal in depth?

A. There was one place where there was coal.

Q. On the outcrop? A. Yes, sir.

Q. And that covered an extent of territory of about

581 ten miles in length, did it not?

A. Well, I don't think that I helped prospect that vein.

Q. Well, as far as you know, from Glencoe south to the opposite section 12 was the only place where there was coal?

A. Yes, sir.

Q. Now, you prospected out east of section 12, didn't you, on the outcrop?

A. I think we worked—I couldn't say it was exactly east of section 12.

Q. It was somewhere in the vicinity?

A. About somewhere south from Glencoe.

Q. You don't know whether it was anywhere near section 12 or not, in this vicinity over here, do you?

A. No, sir, I hardly think it was as far south as section 12.

Q. Now, do you know anything about this coal vein shown east of 12? A. No, sir.

Q. You are a coal miner, aren't you? A. No, sir.

Q. Aren't you a coal miner? A. No, sir.

Q. Didn't you work there as a miner at Diamondville?

A. No, sir.

Q. Do you know anything about coal mining?

A. No, sir.

Q. Do you know coal when you see it? A. Yes, sir.
Q. You never saw any on section 12, did you?
A. No, sir.
582 Q. How did it happen that you are the man that opened the Glencoe mine, if you are not a coal miner?
A. I was working there, and Mr. Snedden took myself and Mr. Harrison and walked along there, and he told us where to start in.
Q. Snedden pointed it out to you? A. Yes, sir.
Q. What were you doing regularly there; what was your employment? A. At that time?
Q. Well, during the time that you were working for the Diamond Company, what was your employment?
A. At various employment, driving team and weighing coal and dropping cars and so on.
Q. But never actually as a miner? A. No, sir.
Q. You didn't get the nine dollars an acre that you supposed you were going to get, did you? A. No, sir.
Q. You were somewhat sore, weren't you?
A. No, sir; they never agreed to give me nine dollars an acre.
Q. Did they agree to give you anything?
A. Yes, sir.
Q. Afterwards? A. Before we made the filing.
Q. And that was Penman?
A. He told me that the Company would—that Snedden said to him, the understanding was general with us boys, Mr. Stevenson and the others, acting, I suppose, as the Company's agent, informed us—
583 Q. Snedden never told you so?
A. Not personally.
Q. Who was Stevenson?
A. He was a man that came over here as one of the party, and paid the expenses.
Q. He was the school teacher, was he not.
A. I think not. I don't know. He might have taught school afterwards.
Q. Well, let us be frank about it. You never had any conversation with an officer of the Diamond Coal & Coke Company about what you were promised in consideration, prior to the time you filed on this homestead? A. No, sir.
Q. Now, afterwards you were paid six hundred dollars, I understood you to say? A. Yes, sir.
Q. Was that for the relinquishment of your homestead?
A. I dont know what they intended it for.
Q. Did you ever relinquish your homestead right?
A. Yes, sir.
Q. When?

A. In June, as I stated, of the following year, as near as I can remember.

Q. 1899. A. Yes, sir.

Q. Is that when you were paid the money?

A. No, sir.

Q. When were you paid it, before or after that?

A. It was after that.

584 Q. About the time the others were paid?

A. I couldn't say as to that. I think there were some others paid at the same time.

Q. You went over to Diamondville in March, 1898?

A. If I remember correctly.

Q. You are pretty certain of that date, aren't you?

A. Yes, sir.

Q. Who was superintendent of the Company then?

A. I couldn't state positively; I didn't work for the Company at that time.

Q. When did you first go to work for them?

A. I think it was some time in April that I went to work under Mr. Snedden.

Q. In April. Do you remember a man named Sharp?

A. No, sir, I dont know anything about him.

Q. Have you been promised any immunity from prosecution in this case? A. No, sir.

Q. You dont know whether they were going to prosecute you or not? A. No, sir.

Q. Who paid you your April wages, your first wages, when you went to work? A. Mr. Snedden.

Q. Personally? A. Yes, sir.

Q. You didn't get any Diamond Coal & Coke Company check for that?

A. No, sir, I think not.

Q. And Snedden continued paying you along for quite a while, personally, did he not, if you worked for him?

585 A. I think I did.

Q. And afterwards when Snedden went back as superintendent for the Company, you began working for the Company at some later period, didn't you?

A. Yes, sir.

Q. When was that? A. In July, I think.

Q. 1898? A. Yes, sir.

Redirect Examination

By Mr. Burke:

Q. That was the month that you made the entry in, wasn't it? A. Yes, sir.

Q. Now, Mr. Kelley has read to you some language from a piece of paper there and in relation to what somebody somewhere is supposed to swear to. Was there anything of that kind shown to you in detail and your attention called particularly to the exact language and each phrase of it at the time you made your affidavit in making your homestead entry?

Mr. Kelley: We object to that as leading and not proper redirect examination.

A. No, sir.
Q. Did anybody read it to you? A. No, sir.
Q. It was handed to you, was it, before you swore to it?
A. Yes, sir.
586 Q. Did you read it over?
A. Yes, sir, I glanced over it.
Q. Did you read it with any care?
A. No, sir, none in particular.
Q. Now, he has asked you in relation to the payment of the six hundred dollars to you. Was there any dispute as to what you were to be paid? A. Well, a little, yes, sir.
Q. Was there any disagreement growing out of that, which led to any ill feeling which led you to testify to anything here?
A. No, sir, there was no trouble.
Q. The matter was settled up at the time?
A. Yes, sir.
Q. And how long before your coming to Evanston to make this filing was it that you had this conversation with Mr. Snedden in relation to your coming? A. About two days, I think.

(Witness excused.)

Whereupon further hearing was adjourned until Thursday, March 26th, 1908, at 9-30 A. M.

587 Thursday, March 26th, 1908, 9-30 A. M.

Leo J. Droubay, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:
Q. What is your name? A. Leo J. Droubay.
Q. Where do you live? A. Cokeville, Wyoming.
Q. How long have you lived there?
A. About five years.
Q. Where did you live prior to going to Cokeville?
A. Cumberland.
Q. And where prior to that, if in Uintah County?
A. Diamondville.

Q. So that you have lived in the vicinity now for how many years? A. About ten years, I think.
Q. Are you acquainted with Thomas Snedden?
A. Yes, sir.
Q. How long have you known him?
A. About the same length of time.
Q. Do you know when the mine was opened at Glencoe?
A. Yes, sir.
Q. Along about that time or shortly after the opening of the mine and about the time of the establishment of the town, did you have any talk with Mr. Snedden?

588 Mr. Kelley: Objected to on the ground that it is incompetent, irrelevant and immaterial for the purpose of establishing the character of any of the ground in controversy; the time is not fixed with reference to the time of the sale of the land by the Government; for the further reason that the defendant is not bound by any statement or admission made by Mr. Snedden, and no foundation for introducing the same has been laid.

Q. You can answer that question, whether you had a conversation along about that time with him. A. Yes, sir.
Q. Now, what position, if any, did he hold at that time, at the time of that conversation, with the Diamond Coal & Coke Company? A. Well, I think he was superintendent.

Mr. Kelley: That is objected to and defendant moves to strike it out upon the ground that the witness does not answer the question from his own knowledge.

Q. Do you know what position he held at that time, at the time of this conversation.
A. Just knowing from hearsay in the town.
Q. Well, what was he doing; what was he at?
A. Looking after business in general, so I understood.
Q. Was he doing and acting in the same way and capacity as he has been since then? A. Yes, sir.
Q. What was the conversation you had with him in relation to his purpose in the development or the opening up of
589 any coal land?

Mr. Evans: We make the same objection.

A. At the time they was building the townsite over there at Glencoe, I went to Mr. Snedden and tried to get the liquor privileges there, but I failed to do it, and of course—
Q. What was the conversation in relation to his purpose, why he located his townsite where he did?

Mr. Kelley: We make the same objection.

A. Why, he said in conversation the reason he put the townsite so far from this Glencoe mine was with the intentions of beginning or opening up another mine south of the townsite, making the townsite answer for the two openings.

Q. What did he say of that coal field, if anything, at that time?

A. He said he thought that would be one of the greatest coal camps in this country.

Q. That is Glencoe? A. Yes, sir.

Q. When was that, what year, do you remember?

A. I think that was in 1899 or 1900, some time along there, or probably 1898. I wouldn't say for sure.

Q. Do you know what the reputation of these lands lying immediately north and south of Glencoe, say, for instance, south, taking sections 29 and 30, 31 and 32, 6 and 5, 7 and 8 and 17 and 18, were at that time as to being or not being coal lands?

Mr. Kelley: Objected to on the ground that the ques-
590 tion is incompetent, irrelevant and immaterial. There is no such thing as the general reputation of land for the purpose of determining its character, and the answer to the question would not serve to fix in any way the character of the land at issue in the case; for the further reason that the witness is not testifying from any knowledge, but is merely answering the question by hearsay.

A. Those lands had the reputation of being coal lands ever since I came to the country and before. I was in the country years ago, and it was noted for coal then.

Cross-examination

By Mr. Evans:

Q. Mr. Droubay, when did you first go to Diamondville?

A. I went there, I think, in 1898.

Q. You think in 1898? A. 1898, probably 1899.

Q. Or probably 1900? A. No, sir, it was before 1900.

Q. It was either 1898 or 1899? A. Yes, sir.

Q. Have you anything that you can fix the date by?

A. Not at present, not here.

Q. Where have you lived immediately prior to going to Diamondville? A. In Utah.

Q. What part of Utah? A. Morden County.

591 Q. What town? A. Croyden.

Q. How long have you lived at Croyden?

A. About two years.

Q. What was your business there?

A. Sheep business.

Q. What business did you enter or engage in when you went to Diamondville? A. I was in the carpenter business.

Q. For how long? A. For a year.
Q. Did you work for the defendant Company?
A. For contractors that was working for the Diamond Coal & Coke Company.
Q. What did you do after that?
A. I went in the saloon business.
Q. Where did you open your saloon?
A. In Diamondville.
Q. And how long did you remain there then?
A. About two years; probably a year and a half, eighteen months.
Q. Engaged in the saloon business all the time?
A. Yes, sir.
Q. Your patrons were mainly the employes of the Company?
A. Yes, sir.
Q. Mostly foreigners, weren't they?
A. Well, yes, just the common run of the town.
Q. Well, the common run of the miners there are foreigners, aren't they? A. Yes, sir.
592 Q. Where did you go after you left Diamondville?
A. Cumberland.
Q. Where is Cumberland from Diamondville?
A. South, I should judge about twelve miles.
Q. What was there when you went to Cumberland?
A. It was just opening up No. 1 mine.
Q. What was there in the way of a town?
A. There was not any, a few cabins, that was all, and tents.
Q. That was about either 1900 or 1901, then?
A. Yes, sir.
Q. Was the railroad completed when you went to Cumberland? A. Just completed.
Q. That branch?
A. That branch was just completed. They did a little ballasting work afterwards.
Q. No. 1 Cumberland mine was opening up?
A. Yes, sir.
Q. Just starting?
A. Well, it had been—you understand it had had a small gang there in the summer or fall.
Q. Were they mining or shipping any coal?
A. No, they were not shipping any coal at the time I went there.
Q. How long was it after you went there before they were shipping coal?
A. Probably three months; two or three months.
Q. Now, of course, No. 2 and the other Cumberland mines were not opened at all; they all followed No. 1?

A. I think they started right along early in the spring at the place they called No. 3, and then No. 2.

593 Q. They started No. 3 before they did No. 2?

A. Yes, or practically the same time, probably.

Q. When you first went to Diamondville, and even at the time you went to Cumberland, there was no mining south of Glencoe; at the time you went to Cumberland there was no coal mine there on that vein south of Glencoe, was there?

A. At the time I went to Cumberland?

Q. Yes.

A. Oh, yes, sir; I say No. 1 was open at the time.

Q. Well, I say there was no mining being done on it, no coal being taken?

A. No coal being shipped; they was working there.

Q. At the time you went to Diamondville, Glencoe had not been started? A. No.

Q. At that time there was nothing in the way of coal mining south of the Diamond No. 2, was there?

A. I think not.

Q. How did you come to leave Diamondville at that time?

A. Why, the town went down and got dull and flat, and I went to Cumberland, thinking I could do better.

Q. Did you engage in the saloon business at Cumberland?

A. Yes, sir.

Q. How long did you stay at Cumberland?

A. Two years, or a year and a half or such a matter.

Q. Then, where did you move?

A. I moved to Cokeville.

Q. That is another coal camp? A. Yes, sir.

Q. What are you doing now?

594 A. Ranching and stock.

Q. What business did you engage in there?

A. In the threshing machine business.

Q. In the saloon business at all? A. No, sir.

Q. Have you been in the saloon business since you left Cumberland? A. No, sir.

Q. Not interested in any way in the saloon business?

A. No, sir.

Q. Now, how intimately did you know Snedden at the time of this conversation about Glencoe?

A. Why, I couldn't say how intimate; I was intimately acquainted with Mr. Snedden and have been ever since I came to the camp.

Q. You were not particularly an associate of his, were you?

A. Oh, no, not a particular associate, although we would fall in with each other very often.

Q. You saw very little of him except at casual times?

A. Oh, no, I would see him every day.

Q. Talk with him every day?
A. Well, not every day, but saw him every day that he was around.
Q. Was he a frequenter of your saloon?
A. Some, yes, sir.
Q. Spent a great deal of his time there?
A. Spent some.
Q. How much would some be?
A. Probably four or five times a month or some such a matter.
595 Q. Just come in and get a drink?
A. Get a drink. We had a restaurant at the back and he used to come and eat there.
Q. When was this conversation with Snedden about Glencoe?
A. Why, there were several conversations with him about this; one, in particular it was I think the year before I went to Cumberland that I spoke to him.
Q. You think it was the year you went to Cumberland?
A. The year before; I am satisfied it was.
Q. About 1900, then?
A. No, I think it was 1899; I wouldn't be sure; or 1900; it was right along there somewhere, any way.
Q. What time of year was it?
A. It was along in the summer.
Q. Was Mr. Burrell there at the time you had this conversation with Snedden; was he there as superintendent or manager of the property?
A. I couldn't say whether he was right there then, but he was in and out.
Q. Was he still connected with the Company at that time?
A. I think he was.
Q. If he was Mr. Snedden wasn't superintendent, was he?
A. I couldn't say; I didn't know their officers any more than their positions.
Q. Well, you know from reputation and from several other sources that during the time Mr. Burrell was there he was superintendent and no one else, don't you? A. No, I don't.
Q. Mr. Snedden was always under him?
A. I don't know that; I don't know whether he was under Snedden or Snedden under him.
596 Q. Do you know that Snedden was not under Burrell during the time that Burrell was there?
A. No, I don't; I know he had the name of being superintendent.
Q. While Burrell was there?
A. Well, I wouldn't say whether Burrell was there or not.

Q. What did Burrell have the reputation of being while he was there?

A. The general manager or something over Snedden at that time, while he was there.

Q. General manager or something; what was the something, superintendent?

A. Well, I don't know, something pertaining to this coal company.

Q. You don't know much about the relation of these men to the Company, Snedden and Burrell?

A. Not any more than the general town talk and reputation.

Q. The general town talk and reputation was simply that Snedden was employed by the Company there?

A. Yes, looking after their business there.

Q. And that he was under Burrell?

A. Well, I wouldn't say that he was under Burrell or anybody else.

Q. And you wouldn't say that he was not? A. No.

Q. What had been done at Glencoe—we will see if we can fix the matter that way—what had been done at No. 4 mine when you had this conversation?

A. They were building houses, the townsite.

Q. What had been done around the mine?

597 A. They had the opening there, a few little buildings put up close to the mine.

Q. Around the coal mine, the opening there itself, what buildings were up?

A. I think there was a bunch of tents; they had the men in tents, and a small boarding house there.

Q. Where did they put the tents from the mine?

A. South.

Q. How far south?

A. About a mile or a mile and a quarter, something like that.

Q. Now, you wanted to start a saloon out there?

A. Yes, sir.

Q. How did you come to go to Snedden to get the liquor privilege; what had he to do with it?

A. Because he was running the whole cheese around there that I knew of.

Q. Did you get it? A. No, sir.

Q. Did somebody else get it? A. Yes, sir.

Q. Do you know why you didn't get it?

A. I have a good idea.

Q. Why?

A. Because there was people there that stood in with him better than I did, that's all.

Q. You were one of the first people to ask for it, weren't you? A. I don't know whether I was or not.

Q. You thought you ought to get it, did you not?

A. No, I didn't, particularly.

598 Q. And somebody else finally got it?

A. I think somebody else had it when I asked for it.

Q. Did you have two conversations with him, separate ones, or was this conversation about the coal lands there, Snedden's statement about the future of that country south there, in the same conversation that you applied to him for the privilege?

A. No, it was not in the same conversation, and probably it was, too.

Q. Well, that is your statement. You say it was not the same or probably it was. Which was it?

A. Well, I say it was not the same conversation that took place at the time asked for the saloon privilege.

Q. What did your asking for a liquor privilege have to do with a conversation about the land south?

A. I don't know as it had anything to do.

Q. You told Mr. Burke on your direct examination that you went to him to get the liquor privilege, and he made this statement to you.

A. And at other times he made this statement. I had heard him make it several different times; I heard him make it to other people outside, in conversation.

Q. Just what did he say about the land south?

A. Well, that he expected it to be the most promising camp or promising mine in that country or that vicinity.

Q. Was he talking about Glencoe? A. Yes, sir.

Q. He expected that to be the most promising mine in the country? A. Yes, sir.

Q. How did this conversation take place?

599 A. Well, I remember it once taking place in the Company store.

Q. Who were present?

A. Why, I don't know; there was a drummer there, a man by the name of Faddis, and I walked in and there was folks there, and I think Burrell or somebody was there.

Q. Was Burrell there at the time?

A. I don't know whether he was there at the time or not, but I think he was.

Q. You couldn't say who were there where they could hear the conversation; you said there was some drummer, you don't know his name, and Faddis. Where is Faddis?

A. I couldn't tell you.

Q. Is [the] in the insane asylum?

A. No, not that I know of; unless within the last few days.

Q. What are his initials?

A. Lindsay Faddis was the name he went by.

Q. What did he do there?

A. Town marshal or deputy marshal or deputy sheriff, I guess at that time.

Q. And you think Burrell was present, or what do you say about that?

A. I say I think Burrell was in the store at the time, but I wouldn't be sure. I don't know who was there besides, probably some strangers.

Q. Was that about the same time?

A. That was one time that I heard him mention this thing.

Q. Was that along about the same time that you were trying to get this liquor privilege?

A. I think it was about the time they was opening up
600 this camp.

Q. You said he said that he thought it might prove to be one of the best mines in the country?

A. In that vicinity.

Q. In the vicinity of Glencoe?

A. Or Diamondville; in that country, I suppose.

Q. Did he say what country was included in it?

A. No, he said in this country or this locality there.

Q. At that time the ground had practically been scratched there, had it, at Glencoe?

A. What do you mean by a scratch?

Q. Well, it had not been opened up or developed there?

A. Well, I don't know what you call development. I know there was a mine there and there was men working there and they was taking out and putting in track.

Q. But they had not got any depth on the coal then?

A. I don't know; I have not been down in there. I know they had quite a little dump there.

Q. I know, but they had just started?

A. They had just started; probably they had been working on it a year, for all I know.

Q. You know it takes time to sink on a coal vein, to run the slopes and open it up? A. Yes, sir.

Q. Do you know anything about coal mining yourself?

A. No, sir.

Q. Do you know anything about coal veins?

A. No, sir.

Q. You never did any prospecting? A. No, sir.

601 Q. What country was it that he had this reputation of being coal country; what country do you refer to?

A. Well, form Frontier south and from Kemmerer south, Cumberland, Spring Valley, all that country is a coal bed.

Q. From Diamondville south how far do you include in the country that had the reputation of being a coal country?

A. Well, it would be that belt that follows the coal bed, the coal croppings. It is showed up in different places.

Q. Now, you know there is a coal vein running down through there, a coal cropping, dont you; you know that by reputation, anyway, for a good many miles? A. Yes, sir.

Q. Is that what you mean? A. Yes, sir.

Q. The land that is covered by and includes that coal cropping, had the reputation of being coal land?

A. The reputation of being coal through that strip of country.

Q. Certainly, and how far off to the south?

A. I dont know; that whole valley, I understand; I have heard men say, who pretended to know, that that country from one hog's back to the other was all coal.

Q. That is, from the Adaville country over to the Diamondville and Kemmerer country? A. Yes, sir.

Q. Did you ever hear anybody say that?

A. Yes, sir, I have heard that several times.

Q. That there was coal in that country?

A. They said there was coal in that country, yes, sir.

Q. Who did you ever hear say that?

602 A. I dont know as I could call any particular name at present.

Q. Where did you get this idea of the general reputation, form the frequenters of your saloon?

A. Oh, no. I was in this country in 1881, and have been off and on through this country ever since.

Q. can you tell me the sections that have this reputation?

A. No, not of the land, I dont think.

Q. Could you tell in any other way?

A. By the map I think I could.

Q. Now, as a matter of fact, it is simply this; there was a coal vein known to crop down in that country, and it was regarded as a more or less promising coal district because of that outcrop, isn't that true? A. I think so.

Q. Now, in 1898 and 1899 and 1900, in fact, until the Cumberland mines opened, there was no coal being mined south of—well, until Glecoe was opened there was nothing south of Diamondville No. 2, was there?

A. There was nothing shipped south of there.

Q. Was there any mines south of that; was there any extensive coal openings there south of that?

A. The Glencoe opening No. 1.

Q. I say until Glencoe was started there was nothing south of No. 2?

A. Oakley, Diamond No. 2; well, I think there was not.

Q. And after Glencoe, until the Cumberland started south of there, there was nothing south of Glencoe?

A. How far south?

Q. Well, until you get to Spring Valley?

603 A. No, I think not.

Q. And even since, there is nothing between the Cumberland mines and Spring Valley?

A. Not that I know of, unless it is within the last five years.

Q. You knew by general reputation that lots of prospecting was being done through that country? A. Yes, sir.

Q. And you knew of lots of prospecting being done up to the present time between Cumberland and Spring Valley?

A. Not at the present time; I haven't been in this country in the last four years.

Q. Well, up to the last four years?

A. Yes, sir.

Q. There were no mines there opened?

A. Well, I dont know whether they were mines, but there were holes opened that showed coal.

Q. You are stating this from reputation?

A. No, when driving through the country I have seen them.

Q. That stretch of country between Cumberland and Spring Valley had the same reputation in early days of being coal land? A. Coal land, yes, sir.

Q. And the same through where the Cumberland branch goes now? A. Yes, sir.

Q. Who did you tell, Mr. Droubay, about this conversation with Snedden about his saying that was what he expected from the Glencoe mine?

A. I dont quite understand.

604 Q. After you had the conversation with Snedden about his idea of the future of Glencoe, the remark that you told about, whom did you tell next that you had had such a conversation with Snedden?

A. Well, I dont know who all I have told, but then I heard several make the same remark in regard to this promising camp that Snedden made.

Q. Answer the question. I am asking you whom you told at any time up to the present that you had had this conversation with Snedden? A. I told Mr. Burke.

Q. Who subpoeaned you? A. The United States.

Q. Well, did the United States, itself, come and subpoenae you? A. You mean the deputy who served the paper?

Q. Yes.

A. A man by the name of Snow, if I remember right.

Q. When were you subpoenaed?
A. I think last Thursday or Friday.
Q. You were at Cokeville when you were subpoenaed?
A. Yes, sir.
Q. Had you told anybody recently, prior to the time you were subpoenaed, about this Snedden conversation?
A. I dont know that I did.
Q. Do you know whether you did or not?
A. Not exactly, no. I dont think I did.
Q. How recently? A. Since I was subpoenaed.
Q. Before you were subpoenaed how long had it been since you told anybody about this conversation with Snedden?
605 A. In fact, I don't know.
Q. Had you in the last month or two or three talked with anybody about it? A. Yes, sir.
Q. With whom? A. A man by the name of Alton.
Q. Is he a Government agent? A. Yes, sir.
Q. Did he go to you there in Cokeville? A. Yes, sir.
Q. What did he say to you?
A. Several things; we had quite a conversation; several conversations.
Q. What did he say to you about this Diamondville mine; I don't care about the general conversation.
A. Why, he just asked me if I was acquainted with that country; he understood that I used to live there. I told him that I was acquainted with it, and from one thing to another, in general, to when I first came there until I left, that I had been acquainted with more or less of the people that had been there.
Q. And you told him about the Snedden conversation?
A. Yes, sir.
Q. Have you any idea of how he came to go to you to inquire about the Diamondville country?
A. I don't know how he came.
Q. You know that hundreds of others that formerly lived at Diamondville have moved and scattered around the country just the same as you have? A. Yes, sir.
606 Q. You don't think it is strange that he came to you?
A. No, because he was on another business in that district, and had been for the last six or eight months.
Q. Are you connected with the Government or this investigation at all outside of this case? A. No, sir.
Q. Or with this case, except as being a witness here?
A. No, sir.
Q. You have been in the employ of the Government, haven't you? A. Yes, sir.
Q. When? A. About the first of this month.
Q. You were employed about the first of this month?

A. Yes, sir.
Q. In what kind of work? A. Surveying.
Q. Were you employed at the time you were subpoenaed?
A. No, sir.
Q. Is your employment through? A. Yes, sir.
Q. What kind of surveying were you doing?
A. Land surveying.
Q. What were you paid?
A. I was paid five dollars a day. I was not paid five dollars a day, but it amounted to five dollars a day; my expenses—I was paid five dollars and a half for six days.
Q. That is, for your own work?
A. My work and a team.
607 Q. You were paid five dollars or five and a half a day?
A. Yes, sir.
Q. Is the survey completed? A. Yes, sir.
Q. Have they finished all of that work?
A. Well, as far as I know. I was driving team; that is all I did.
Q. Do you expect to go back to that after you get back from here? A. No, sir.

(Witness excused.)

608 Heber O. Ball, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:
Q. State your name? A. Heber O. Ball.
Q. Where do you live? A. Rigby, Idaho.
Q. Have you ever lived in Wyoming?
A. Yes, sir.
Q. Where?
A. Around Kemmerer and Diamondville and Cokeville and Evanston and Hot Springs.
Q. When did you live within and about Diamondville?
A. In 1898 and 1899.
Q. And when at Cokeville? A. This winter.
Q. How long did you live in and about Diamondville and Cokeville and that vicinity?
A. Well, it has just been off and on; it has not been for long at a time. I was there a good many years ago, twenty-five years ago.
Q. Did you ever work for the Diamond Coal & Coke Company? A. Yes, sir.
Q. What year? A. I think I started there in 1897.
Q. And about how long did you work there, off and on, for them?

609 A. Off and on, I worked there for about five years; four years, I think.

Q. Were you acquainted with one Thomas Snedden?

A. Yes, sir.

Q. What position did he hold under the Diamond Coal & Coke Company while you have known him?

Mr. Kelley: Objected to, first, because the time is not fixed; second, because the witness has not shown that he possesses any knowledge about the matter.

Q. Answer the question.

A. I understood he was the superintendent.

Q. Did you have any dealings with him as such?

A. Yes. sir.

Q. What years? A. In 1898, I think was the first.

Q. And after that did you have any other dealings with him yourself? A. Yes, sir.

Q. How well acquainted are you with the territory lying south from Diamondville to Glencoe and from Glencoe on down to Cumberland; have you ever been through that country?

A. Yes. sir.

Q. A number of times?

A. Well, not lately; not since it was settled up, you might say; not since it has been mined. It was before that that I was up there and well acquainted with it.

Q. Were you acquainted with its reputation—now, in speaking of that country I speak of sections 4 and 5, or
610 we will start over there at 35 and 36, in township 21 north, range 116, and those several sections, 4 and 5 and 8 and 9 and 16 and 17 and 20 and 21 and 22 and 19 and 18 and 30 and 29 and 31 and 32, 6 and 5 and 7 and 8 and 18 and 17 and 19 and 20, and so on down toward Cokeville. Were you acquainted with the reputation of that territory and country during the years, 1898, 1899 and 1900 and 1901 as to being or not being coal country; the general reputation, I speak of, among men of that section of country at that time.

Mr. Kelley: Objected to on the ground that the question is incompetent, irrelevant and immaterial; first, insofar as it involves the premises not in controversy in this action, and generally because it is an improper manner of establishing the character of the ground and does not tend to establish the character of the ground insofar as the same is in issue in this cause; next for the reason that no proper foundation has been laid to enable the witness to express any opinion or knowledge of the general reputation.

Q. Answer the question yes or no, whether you are acquainted with its reputation.

A. I didn't quite understand you toward the last; you said toward Cokeville?

[A.] Toward Cumberland, I mean.

A. I understood that the reputation of it was that it was coal land.

Q. What do you know about any prospecting taking place there by the Diamond Coal & Coke Company during the years, 1898, 1899 and 1900?

611 Mr. Kelley: I move to strike out the answer of the witness to the question propounded as to the general reputation, of the ground that it is not responsive and is not a proper answer to the question. This objection may be noted to the answer; I did not have an opportunity of making it before on account of you and the witness talking.

Q. (Last question read.)

Mr. Kelley: That is objected to for the same reason, that it is incompetent, immaterial and irrelevant and not a proper way to establish the character of the ground. The time is not fixed, nor the ground upon which prospecting was done, if any?

Q. I speak of the land which I mentioned about which you testified to the reputation.

A. I understood they had been prospected.

Mr. Kelley: We move to strike out the answer of the witness as not responsive.

Q. What do you know of it as to your knowledge as to seeing any one prospecting?

A. I have seen men coming and going from there.

Q. Prospectors?

A. Why, they looked like diggers to me, coal diggers.

Q. Whose men were they, if you know?

A. Mr. Snedden was one of them. Mr. Penman was one, and Mr. Amoss.

Q. Were they employes of the Diamond Coal & Coke
612 Company? A. I don't know.

Q. Charles Amoss was? A. Yes, sir.

Q. What was the other man's name? A. Mr. Penman.

Q. What was his first name?

A. Bill, we call him; William, I suppose.

Q. And who was Snedden; you mean Thomas Snedden?

A. Yes. sir.

Q. Did you ever have any talk with Mr. Snedden about it?

A. No, sir, not about the coal lands.

Cross-Examination

By Mr. Kelley:

Q. Mr. Ball, you were up around Diamondville in 1898, 1899 and 1900, I understand?

A. Yes, sir; I can't say whether that was in 1900 or not, for sure.

Q. Well, along about 1898 and 1899, you think?

A. Yes. sir.

Q. What were you employed at at that time?

A. At a little of everything, almost on the outside of the mine.

Q. A sort of general all around man?

A. Yes, sir, doing some contract work and such as that.

Q. Are you a coal miner yourself? A. No, sir.

Q. You never have worked at the actual mining of coal?

A. No, sir.

Q. And therefore I understand you don't assume to

613 qualify as a coal miner, do you? A. No, sir.

Q. Now, you knew Mr. Thomas Snedden along during the time that you were there? A. Yes, sir.

Q. You said that you understood that he was the general superintendent? A. Yes, sir, at times.

Q. Now, of course, Mr. Ball, you had no absolute knowledge about that, so that you know it yourself as a fact, did you?

A. In my dealings with him at the time, I believe I could swear to that.

Q. Can you fix the time at which you had any dealings with him? A. It was either in July or August, 1898.

Q. Now, prior to that time Snedden had not been superintendent during an intermission, had he, or had never been superintendent prior to that time?

A. I couldn't say as to that now.

Q. You don't know about that? A. No, sir.

Q. When did you go to Diamondville?

A. I think it was in 1897.

Q. At that time Snedden was not superintendent, was he?

A. I couldn't say as to that; I don't think that he was, though.

Q. And in the early part of 1898, take it in the spring and summer, did you know a man named Sharp?

A. Joseph Sharp?

Q. Yes.

614 A. He was there when I first went there; I think that was in 1897.

Q. Well, Sharp was superintendent, was he, at that time?

A. I suppose so.

Q. Snedden, as a matter of fact, was merely pit boss at that time, was he not?

A. I couldn't say. I wasn't working directly for the Company at that time.

Q. Now, you have testified in answer to some question by Mr. Burke that you know this country from sections 35 and 36 in township 21 down south to about in the vicinity of Cumberland, have you not?

A. I have been over the ground some.

Q. And Mr. Burke asked you in regard to a large number of sections through there, as to whether or not you were acquainted with them in 1898, 1899 and 1900? A. Yes, sir.

Q. Now, your acquaintance with this ground was merely of a casual character, obtained from driving over the country occasionally, or being over it, was it not?

A. Riding and driving and sometimes walking.

Q. Well, you could not undertake to give a detailed description of the features of that country on every section throughout that state, could you? A. No, sir, I could not.

Q. For instance, if you were asked concerning any particular section there, you would not have anything more than a general, casual knowledge of the country gained as you have told us, would you? A. That is all.

615 Q. Now, then, in this time, in 1897 and 1898 and 1899, and along through there, there was not any coal mining south of the No. 2 mine; you know where that is, don't you?

A. Yes, sir.

Q. There was not any coal mining along south of that, was there? A. There was some prospecting down along there.

Q. Yes, there has been some prospecting going along there for thirty years, has there not?

A. I never saw any when I was in there long ago.

Q. You have testified as to the general reputation of the character of the land. Now, you know by general reputation that this land has been prospected for a great number of years, this section through there, don't you?

A. It had west of there when I was in there a good many years ago.

Q. And you know particularly of an old fellow that lives down there about No. 2, I think, across on the hill, that lived there for a great many years, prospecting all over that country, don't you? A. I know of him.

Q. So there was more or less prospecting all through that country for a great number of years, that is fair to say, isn't it?

A. Well, I couldn't testify to that; I never saw them, but I have heard of this man that you speak of.

Q. When you spoke of Snedden and Penman and others prospecting down in that country, did you actually see them

engaged at work or merely in going and coming to and from their labor? A. Just going to and from.

Q. You didn't know just where they were working, except that you supposed they were working somewhere in that country, south of No. 2, we will say? A. Yes, sir.

Q. Prospecting? A. That was the understanding I had.

Q. You did not know, what, if anything, they found down there, did you?

A. Well, it looked pretty black from where I was.

Q. What looked black? A. Where they was digging.

Q. Did you see where they were actually digging?

A. Yes, sir.

Q. Where was that? A. South of No. 2.

Q. Do you know about how far south of No. 2?

A. Something along about a mile and a half, something like that; a mile or a mile and a half.

Q. It might have been two miles?

A. It could have been, yes, sir. I didn't pay much attention to it.

Q. It might have been less than a mile?

A. I don't think so.

Q. Anywhere from a mile to two miles, we will say, then. Is that satisfactory? A. Yes, sir.

Q. Did you only see them digging in one place?

A. I didn't see them digging.

Q. Did you see the hole that they had dug?

A. No, sir, I saw the dirt that came from the hole, or that was supposed to come from the hole, from where I was.

617 I didn't go to it.

Q. Where did you see that dirt?

A. About between a mile and two miles from No. 2.

Q. Where were you when you saw it?

A. Along on the other high ridges.

Q. Were you right up to the dirt? A. No, sir.

Q. How far from the dirt when you saw it?

A. Probably half a mile; may be a mile.

Q. Would you venture the assertion under oath that that was coal, because of observing it from a distance of half a mile to a mile, it looked black to you?

A. I couldn't say that it was.

Q. So you don't know, as a matter of fact, that Snedden or these fellows actually did find anything; you didn't make any investigation? A. No, sir; I didn't go to the hole at all.

Q. Now, then, are you acquainted to any extent with the actual coal that has been developed down in that country?

A. No, sir.

Q. You are not? A. No, sir.

Q. About all you know, to be fair about it, Mr. Ball, is that it is supposed that the vein, the big vein that is worked in No. 1 and No. 2, extends southerly through the different mines that have been opened up along the outcrop?

A. Yes, sir.

Q. That is all you know. At this time, however, none of these mines were operating, were they? A. What time?

618 Well, along in 1897 and 1898 and 1899.

A. I, couldn't say as to 1899. In 1897 they was not working.

Q. The Cumberland branch of this railroad has been built down through that valley, had not been constructed at that time, had it? A. No, sir.

Q. There was not any railroad in the immediate vicinity of where these people were working?

A. No closer than No. 2.

Q. You do not know so that you can swear specifically as to the limits of this coal vein down through that country, do you? A. No, sir.

Q. And you could not tell me under oath whether or not any of the particular land that you have mentioned is actually coal land, outside of the general talk that you heard about that time? A. No, sir, I could not.

Q. This general talk was merely an impression that that was a coal country up through there, was it not?

A. Yes, sir.

Q. And it was a coal country along there for a great number of miles, was it not, or supposed to be?

A. Yes, sir.

Q. And you dont know anything about the boundaries of it, what this land was supposed to be coal land actually comprised, do you? A. No, sir.

Q. It was simply general talk?

619 Q. Now, Mr. Ball, some time ago you were a defendant in the suit brought by the United States, were you not, or a party to it? A. I think not.

Q. Well, you were interested in some timber suit that was brought against the Diamond Coal & Coke Company by the Government, were you not? A. Yes, sir.

Q. That suit arose, I believe, out of a contract with the Company, which the Company had at that time with you for some timber? A. Yes, sir.

Q. The Company paid you for the timber, did they not?

A. Yes, sir.

Q. Then, the Government sued them and sought to make them pay over for it; that was just about the size of it, wasn't it?

A. I believe that is the way it turned out.

Q. And you assisted the Government in that matter, did you not? A. Yes, sir.

Q. You have been employed as a witness in other matters, haven't you? A. In this one, is all.

Q. Have you not been engaged in some other timber investigations that the Government is making in this country, in the vicinity of Diamondville and Cokeville and those places?

A. Yes, sir.

Q. How long have you been engaged by the United States Government in that occupation or employment?

A. Oh, at various times.

620 Q. How many times would you say you have been engaged altogether?

A. That is in the timber, you mean?

Q. No, I mean generally as a sort of professional investigator or witness for the Government?

A. Three times, I believe; I think it is three times, but I am not right sure about it.

Q. Well, there was this suit against the Diamond Coal & Coke Company over the timber, was it not; you were engaged in that suit? A. Yes, sir.

Q. And there is this case? A. Yes, sir.

Q. Now, what other cases have you had anything to do with, other cases that are being investigated or that have been brought or that have been tried?

A. Just one other, I think.

Q. What case is that?

A. That is counting some timber east of Cokeville.

Q. Do you know against whom that suit is brought or is to be brought? A. I cant say.

Q. Well, there has been one brought here within a day or two that you have had something to do with, has there not?

A. I couldn't say as to that.

Q. A case against Stoner or the Stoner estate; have you had anything to do with that?

A. I done some counting of timber up there and I think there was two cases.

Q. Were you engaged likewise as a contractor or had anything to do as a contractor about this timber prior to this time?

A. This timber that I am on now?

621 Q. Yes.

A. No, sir, I never had anything to do with that timber at all.

Q. You did not prior to this time? A. No, sir.

Redirect Examination

By Mr. Burke:

Q. Mr. Ball, does the fact that you were called as a witness in the timber case against the Diamond Coal & Coke Company have anything to do wih your testimony in this case?

A. No, sir.

Q. You were called upon then by the agent of the Government to locate where that cutting took place, weren't you?

A. Yes, sir.

Q. You knew where it took place?

A. I did, yes; I was there and helped cut it off.

Q. And they paid you for your services and for all of them, did they? A. Yes, sir.

Q. And you as a witness were subpoenaed, were you not, into court to give your testimony? A. Yes, sir.

Q. And so far as any Government agency since, it has been merely as an employe to help locate lands and timber that was cut over and things of that kind? A. Yes, sir.

Q. Would that fact have anything to do whatever with your testimony here today?

622 A. None whatever.

Q. Now, Mr. Kelley has asked you in relation to one occasion where you saw Mr. Snedden and one or two others coming from what you took to be prospecting work. Did you see them on more than one occasion?

A. It seems to me like I saw them two or three times.

Q. Did you see in more than one instance where prospecting had evidently taken place? A. No, not at that time.

Q. But at a later date? A. Yes, sir.

Q. Where were those instances, below the one that you referred to, that Mr. Kelley asked you about?

A. Yes, I think there is some on both sides of it, both north and south.

Recross-Examination

By Mr. Kelley:

Q. Your partner was a defendant in that suit, was he not?

A. Mr. Gould, yes, sir.

Q. Why were you not made a party to it, do you know?

A. I couldn't tell you.

Q. Did you have any understanding or agreement with the Government or its agents, that if you testified you would not be sued? A. No, sir, I did not.

Q. You stood in the same relation to the matter that Mr. Gould did, did you not; you were partners in the matter?

A. Full partners, sir.

623 Q. You were contracting from the Government and have been since this suit for the timber up around Cokedale, have you not?
A. Contracting from the Government, no, sir.
Q. Well, taking out timber under contract?
A. Yes, sir.
Q. Is that your business at the present time?
A. Yes, sir.

Redirect Examination

By Mr. Burke:
Q. You lived in Idaho, didn't you, at the time the suit was brought against your partner and the Diamond Coal & Coke Company? A. Yes, sir.
Q. And for the very plain reason that service could not be got against you, you were not sued?

Mr. Kelley: You subpoenaed him to come down here.

Mr. Burke: I don't generally serve a man as a defendant after I have brought him down into this jurisdiction under a subpoenae.

By Mr. Kelley:
Q. Did you show any representatives of the Government the land from which the timber had been cut in that case before you were subpoenaed? A. Yes, sir.

By Mr. Burke:
Q. You came from Idaho to do that, didn't you?
624 A. Yes, sir.

(Witness excused.)

625 Morgan Griffiths, after being duly sworn as a witness for complainant, testified as follows:

Direct Examination

By Mr. Burke:
Q. State your name? A. Morgan Griffiths.
Q. Where do you reside? A. Rock Springs.
Q. How long have you resided there?
A. Twenty-five years.
Q. What is your business?
A. Mine foreman for the Union Pacific Coal Company.
Q. How long have you held that position?
A. I think somewhere about fifteen years.
Q. What has been your business through life, Mr. Griffiths?
A. Coal mining.
Q. And what is the fact as to whether it is a part of the duties of your office with the Union Pacific Coal Company to locate coal lands and establish mines?

A. I have had charge of the prospecting, that is, overseeing prospecting.

Q. And do you determine as to the place where the mines shall be opened for that Company? A. No, not altogether.

Q. Are you adviser in that matter with the coal company?

A. Well, no, I couldn't say that I am.

Q. Is it upon your work and your investigation and prospecting that that is done by the Company?

626 A. Yes, it is on account of the prospecting that we do, and the showing that we make.

Q. Did you ever prospect the country lying between Spring Valley and Diamondville or up in that direction?

A. Yes, we prospected from south of Spring Valley up to section 17, I think, north of Cumberland.

Q. That would be section 17 in township 19 north, range 116 west? A. Yes, sir.

Q. And did you locate the mine at Cumberland?

A. Well, we done prospecting there on section, 31; I think it was done in September, 1899.

Q. When was that mine opened?

A. In 1900; the fall of 1900.

Q. And what is the fact as to whether that was opened under your direction and supervision as foreman?

A. It was opened on what was shown there on that section on the surface, the outcrop.

Q. Just by the outcrop? A. Yes, sir.

Q. It was not opened by reason of any drilling having been done at that time or previous to that?

A. No, there was no drilling done whatever.

Q. Now, are there any mines opened by the Union Pacific Coal Company north of that?

A. No. 2 mine was opened at the same time.

Q. What was true of that, whether that was opened up by your Company from what you found at the outcrop or by reason of drilling?

A. It was opened by reason of what we found on the outcrop.

627 Q. Is there any mine north of that that has been opened by the Union Pacific Company?

A. There is a small mine open on section 17.

Q. What is true as to whether that was opened up by reason of what you found at the outcrop or by reason of drilling?

A. That was on what we found on the outcrop.

Q. As a practical coal miner, that is frequently the method that is pursued, and upon which you act in the matter of opening or not opening a coal mine, isn't it?

A. How is that?

Q. It is customary to open a coal mine upon what you discover at the outcrop?

A. It has been, yes, sir, in the past.

Q. And that is considered among coal people as a practical method to pursue, isn't it, to open on what you find at the outcrop? A. Generally it is, yes, sir.

Q. Now, what has been the extent of the operations there at Cumberland as to how much coal per day on an average has been removed from that mine since it was opened up?

Mr. Kelley: Objected to as incompetent, immaterial and irrelevant for any purpose in the case. It tends neither to establish nor to disprove any of the issues in the case; particularly it does not tend to show or establish the known character of the land involved in this controversy at the time of its sale by the Government; for the further reason that it refers to operations carried upon land other than the land embraced in the controversy.

628 Q. Answer the question.

A. Well, there has been taken out over four hundred thousand tons a year from both mines.

Q. And you are taking out now from that mine about how many tons a day? A. I think about a thousand tons a day.

Q. Now, take the mine north of that that you spoke of, which is in section 19. A. Section 19, yes, sir.

Q. That is known as Cumberland No. 2 isn't it?

A. Cumberland No. 2.

Q. How long do you say that has been in operation?

A. It was opened up the same time as No. 1.

Q. And about how many tons of coal have you taken out of that mine?

Mr. Kelley: We make the same objection.

A. Oh, there has been years that they have taken out there four hundred thousand tons.

Q. About how many tons a day are you taking out of that mine now?

A. I think we are taking out now about between thirteen hundred or probably fifteen hundred tons.

Q. And take the mine north of that in section 17, can you locate it on the map, about where that mine is in 17?

A. It is about right where that cross line is.

Q. About the center? A. About here.

Q. It is in the northwest quarter of the southwest quar-

629 ter of section 17, where the mine is open?

A. In the southwest quarter.

Q. Yes, the northwest of the southwest. Are you working that mine now? A. No, it is idle at present.

Q. What is the fact as to whether that work goes, generally to the west line of that section?

Mr. Kelley: We make the same objection.

A. Yes, they have worked to that line.

Q. And what depth of coal was there against that line when you quit working there?

Mr. Kelley: We make the same objection.

A. Ten to fifteen feet.

Q. That is, the vein was ten to fifteen feet thick?

A. Yes, sir.

Q. At the point against the section line between 17 and 18?

A. That is on the—

Q. West?

A. On the south part of the section. On the north part it is not so good.

Q. You have worked also north in that section, have you, to your line now? A. Yes, sir.

Q. Have you worked south also from the opening?

A. Yes, going south we worked to that line, is all.

Q. How much have you taken out of that mine?

630 Mr. Kelley: We make the same objection.

A. Oh, they took out about six or seven hundred tons a day, or eight hundred.

Q. How long has that been operated; when did you open that up?

A. I think that has been opened up probably about two years ago.

Q. If I understand you, you had prospected that country from down near Spring Valley, in a northeasterly direction along that line of outcropping up to section 17 in township 19 north, range 116? A. Yes, sir.

Q. And that prospecting was continued further up than that by your men?

A. Prospecting was done before that time north.

Q. What is the fact as to whether a map made by you showing the results of your work there and those men under you. in regard to prospecting through that country from Spring Valley north?

Mr. Kelley: We make the same objection.

A. There was a map made by the Company, by the engineers of the Company.

Q. Was that done under your supervision and were you in charge of it?

A. No, although I was with them some times when they were running the lines.

Q. Was that not made up from your report? Did you
631 not testify before the Land Office here in a case that such a map was made from your reports?

A. It was made from reports, from what we showed on the outcrop.

Q. You were the expert, weren't you, in the directing of that work, in the directing of that work and that prospecting and the making of that map?

A. No, I can not say that I was an expert or had anything to do with the map.

Q. It was from your work that the map was made, wasn't it?

Mr. Kelley: Objected to as leading.

A. It was from the work that was done on the outcrop, yes, sir.

Q. You have seen the map, haven't you? A. Yes, sir.

Q. What do you say as to whether the map is correct or not?

Mr. Kelley: Objected to upon the ground that the witness testified he had nothing to do with the preparation of the map, and he is not an expert; and for the further reason that it is incompetent and immaterial under the issues in the case.

A. I believe the map is correct.

Q. In all of its particulars from which it was made?

A. I think so.

Q. I will ask you to examine this and state whether this is a blue print of the map that was thus made?

A. That is the same map that we have.

632 Q. And what was it made for; what was the occasion of doing that? A. To show the field, the coal field.

Q. And the extent of it? A. The extent of it, yes, sir.

Q. Was it made for the purpose of showing the work that was done in connection with the ascertainment of the facts in relation to that coal field?

A. After the prospecting, the map was made to show where mines could be opened.

Mr. Burke: We offer this map in evidence and ask to have it attached to the record as complainant's exhibit No. 307.

Cross-examination

By Mr. Kelley:

Q. When was this map made, Mr. Griffiths?

A. The surveyors were out there, I think, in 1899 and 1900, and some of them before that; I don't know—that is, north of section 17, I don't know when that work was done, that is, I don't know how long before that.

Q. When was the map compiled—of course, you didn't have it compiled before the surveyors were out?

A. I couldn't say just when it was.

Q. Well, it was some time after 1900, was it not?

A. Well, probably in 1900, I think.

Q. And this was compiled for the Union Pacific Coal Company, I suppose? A. Yes, sir.

633 Q. They had charge of it? A. Yes, sir.

Q. And it was not a matter for public information, was it? A. No, sir, it was not.

Q. You don't know that the Diamond Coal & Coke Company had any knowledge of what was on this map, do you?

A. No, I do not.

Q. Now, Mr. Griffiths, you say you are the mine foreman for the Union Pacific Coal Company? A. Yes, sir.

Q. And where? A. At Rock Springs.

Q. What extent of territory does this map cover?

A. It covers, I think, from the west of the tunnel at Aspen up to the Kemmerer Coal Company, I believe.

Q. And in miles, approximately, how far would that be; you can refer to the map if you want to, to ascertain.

A. I can count the townships. It goes up to township 22 from township 14.

Q. That would be nine townships, would it?

A. Yes, I should think so.

Q. 14 to 22, that would be eight, inclusive?

A. Yes, sir.

Q. That would be about fifty-four miles, would it not; inclusive it would be fifty-four miles from the northerly extremity to the southerly extremity, would it not?

Mr. Burke: I don't know whether your mathematics is right.

Mr. Kelley: Well, let's look at it.

634 Q. It would be about fifty-four miles, would it not?
A. Yes, sir.

Mr. Kelley: Now, we object to the introduction or the reception of this map in evidence on the ground that it is incompetent, immaterial and irrelevant for a number of reasons: first, it includes a territory some fifty-four miles in extent; second, it is shown that at the time this map was prepared was long after the filings in this case had been made and the entries; third, for the reason it was not a map prepared by the defendant corporation or of which the defendant corporation had any

knowledge, but a private map made for the Union Pacific Coal Company; fourth, for the reason that it in no way tends to establish or prove any of the issues in this case, and particularly does not tend to determine the character of the land involved in this controversy at the time the sale from the Government was made; generally, for the reason that it is incompetent, immaterial and irrelevant and that no proper foundation or proof has been made to justify the admission of the map in evidence.

By Mr. Kelley:

Q. Now, Mr. Griffiths, how long have you had experience as a coal miner? A. Ever since I was a boy, nine years old.

Q. And that is about how long in years?

A. That would be forty-one years.

Q. That experience, I suppose, has covered very many different coal fields? A. Yes, sir.

635 Q. On some of the coal fields that you have worked in or had experience with in the United States, you might mention a few.

A. The first work I done in this country was in Indiana and Iowa and Colorado and Wyoming.

Q. How long have you been engaged with the Union Pacific Coal Company? A. Twenty-five years.

Q. And has the greater part of your work during that time been in the Rock Springs field? A. Yes, sir.

Q. You testified, I believe, that you had charge of the prospecting or overseeing the prospecting done by that Company? A. Yes, sir.

Q. This prospecting, I assume, was for the purpose of endeavoring to find places in the coal field suitable for the development of mines? A. Yes, sir.

Q. Is that a necessary preliminary to the sinking of a coal mine? A. I think so.

Q. Isn't it true that you can go anywhere there within this fifty-four miles and sink a coal mine on this outcrop and develop a first class, paying coal mine? A. No, sir.

Q. That is not true? A. No, sir.

Q. Notwithstanding this coal vein runs from the northerly extremity down to the southerly extremity of this map, that is not true, is it? A. No, sir.

636 Q. Then, I take it, Mr. Griffiths, that the mere presence of an outcrop running through land does not of itself determine that there can be found a paying mine of coal, worked down from that outcrop, in all cases? A. Yes, sir.

Q. You said yes. Do you mean yes or no; you mean that it does not determine? A. Yes, sir.

Q. It is a fact, Mr. Griffiths, is it not, that in your experience as a prospector, you have frequently seen outcrops that would not pay to develop?

A. Yes, that is, judging from the outcrop.

Q. In fact, that occurs very many more times than it does that the outcrop can be developed into a paying mine at all points along its strike; do you understand the question?

A. Yes, sir.

Q. That is true, is it not? A. Yes, sir.

Q. So that there are a number of things which must be taken into consideration in developing coal mines, besides the mere presence of a mere coal vein; that is true, isn't it?

A. It is.

Q. Now, then, coming down to the particular land concerning which you were asked, and the land in the vicinity thereof, you are pretty well acquainted, are you, with this coal vein from Kemmerer down to Cumberland?

A. Well, I have been in the Diamondville mines.

Q. I mean with the general character of the vein, the outcrop first.

A. I know where it lies there, yes, sir.

637 Q. Have you been over the strike of the outcrop a good many times?

A. No, I have not; I have been in a couple of prospects there though; on the Glencoe mine, and I was there when it was opened.

Q. You know the general conditions of the mining from Kemmerer down to Cumberland?

A. No, I can't say that I do.

Q. Whereabouts in this vicinity do you know this vein pretty well, that is, the outcrop of the vein; between what points? A. I know from section 17 south.

Q. That is in township 19 north, range 116 west?

A. Yes, sir.

Q. You don't know from section 17 north, do you?

A. Well, I have been in a couple of prospects there, one just north of 17, and another one at a gap there, I don't know just what they call that gap.

Q. Now, Mr. Griffiths, in your experience as a coal miner have you found that it sometimes occurs that notwithstanding an outcrop was well defined so that it could be traced readily over the surface, that that did not indicate coal in depth when actually explored? A. No.

Q. You never have found that? A. Oh, yes.

Q. You frequently find that, don't you? A. Yes, sir.

Q. I will ask you as a coal minner of experience, whether you, in advance of development upon a vein, can determine positively whether or not [not] you are going to have coal in depth? A. Not without drilling.

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Q. From a mere examination of the surface of the soil, is there any way known to you as a coal miner, or to the science of coal mining, outside of the method of exploration, by which it can be determined whether or not payable, commercial coal or any coal will underlie a surface? A. No, sir.

Q. Now, if that is true, it is also true, that, notwithstanding you may have an outcrop running through a country, no man on earth can say that the land which lies off of this outcrop, at a certain distance removed from it, is coal land, without going down and seeing what is under the surface; isn't that true? A. That is true.

Q. Absolutely. So that, looking at this map, exhibit No. 280—this is a map which shows the country lying generally from Kemmerer down to Cumberland, is it not, along in that vicinity? A. Yes, sir.

Q. I want to direct your attention to this red mark upon the map, and will tell you that that indicates, according to the evidence regarding this map, the general position of the outcrop of the Kemmerer-Cumberland vein. Do you understand? A. Yes, sir.

Q. Now, would the mere fact that this outcrop existed as shown upon this map, in the absence of actual exploration, determine whether or not the land on either side of the strike, at any distance from it was coal land within the sense of land that could be worked for coal land or that would be more valuable?

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A. It would not be positive, only that the coal dips in that direction.

Q. Yes, but of course, you could not assume to say as a positive fact that the coal would continue deep down?

A. That the coal was there, no, sir.

Q. Would you say that, because the coal dipped in that direction, there was a possibility may be that it would be underlaid with coal in the direction of the dip?

A. Yes, sir—

Mr. Burke: Let him answer the question.

Q. Answer as fully as you please. Had you finished answering? A. Yes, sir.

Q. There would be a possibility. Now, then, as a coal miner of experience, I want to direct your attention to section 18 in township 20 north, range 116 west. Do you see it?

A. Yes, sir.

Q. Assuming that this vein passes through section 17 as shown on this map, going through, entering the section from the south through the southeast quarter of the southeast quarter, and traversing it in a northeasterly direction so that it departs through the northeast corner of the northeast quarter as shown upon this map? A. Yes, sir.

Q. And that the outcrop is more or less continuous through this section along the strike that I have indicated, would the mere fact of the presence of that outcrop as indicated upon the map enable you to say, before development or exploration of any kind, that section 18 was coal land?

640 A. Only that the coal was dipping in that direction; unless there is something wanting in it.

Q. Could you say as a matter of positive fact?

A. No, I could not.

Q. Do you know of any means by which any person could say as a matter of positive information? A. No, sir.

Q. That because of the existence of that outcrop, there was a ton of coal under section 18? A. No, sir.

Q. Does the same thing hold true with reference to section 20 or that portion of section 20 which is indicated in red?

A. Not unless the coal outcrop on there, it would not.

Q. Could you say from the mere outcrop of the coal?

A. If there was an outcrop on that particular part of the section, I could, yes, sir.

Q. But you could not say that, if the outcrop ran through this portion which is colored green over there, that that portion which lies to the westerly of it, colored red, had any coal under it?

A. You could not say without prospecting.

Q. No. You could say, of course, that where you find coal at the outcrop, there is coal there, and that is all you could say? A. Yes, sir.

Q. And that is true also with reference to section 30 and section 6, is it not? A. Yes, sir.

Q. And it is also true with reference to section 12 in township 19? A. Yes, sir.

641 Q. And section 18 in township 19; that would also be true, where the coal enters that, by the mere presence of the outcrop you could not say in advance of exploration?

A. Yes, sir. Certainly not, without development.

Q. Now, you have had considerable experience with the mining that has been carried on by the Union Pacific Company in this immediate vicinity that you were questioned about by Mr. Burke? A. Yes, sir.

Q. And you also have had experience in the mining that has been conducted by the Union Pacific on this same vein down around Spring Valley, have you not?

A. No, sir. The vein is not worked at Spring Valley at all.

Q. You never worked it at Spring Valley at all?

A. Not this seam.

Q. Is it not the same seam of coal that is supposed to run through into Spring Valley?

A. No, sir; the Spring Valley seam is fifteen hundred feet, I believe, under this seam.

Q. It is an entirely different seam?

A. Yes, sir.

Q. It is a fact, however, that down at Spring Valley the Union Pacific Company has given up coal mining as not practical for the present, at least? A. Yes, sir.

Q. It is also a fact that the Union Pacific Coal Company spent a great many hundred of thousands of dollars unprofitably in an effort to develop that coal field, is it not?

642 A. Yes, they opened a mine there and went to considerable expense there.

Q. Does this coal seam run through the Spring Valley district at all? I mean this particular one now that we are talking about here, the Kemmerer-Diamondville seam?

A. No, it is covered over there with the tertiary for formation?

Q. How far is Spring Valley from Cumberland?

A. I think it is about twenty-six miles.

Q. Now, then, directing your attention particularly to the operations carried on by the Union Pacific Coal Company here, what was the first mine started? A. Spring Valley.

Q. I mean here at Cumberland.

A. Oh; No. 1, of course, they both started right at the same period.

Q. No. 1 and No. 2? A. Yes, sir.

Q. No. 1 is located on section 21, I believe. A. 31.

Q. Section 31 in township 19? A. Yes, sir.

Q. When did you begin operations on that mine?

A. 1900, I believe.

Q. Prior to that time, Mr. Griffiths, there was no actual coal mining operations in this vicinity or district south of Diamondville No. 2, I believe?

A. Glencoe, I think, was opened before us.

Q. About the same time, was it not, that you began developing Cumberland and the Diamond Company at Glencoe?

A. I think they started a little before we did.

643 Q. Well, south of Glencoe and along the crop there was no development at all, was there? A. No.

Q. Where you struck or opened up your vein at No. 1 mine, did you have a good outcrop? A. A good outcrop.

Q. In fact, it was a very good outcrop, was it not?
A. Yes, sir.
Q. And so far as ordinary indications are concerned, it looked as though you might profitably work a great extent of territory lying west of the outcrop at that point, did it not?
A. Yes, sir.
Q. Now, as a matter of fact did you encounter any difficulty in No. 1 mine with reference to your coal continuing down from the outcrop where you had opened it, your entries?
A. Yes, sir.
Q. As a matter of fact, in running north from the slope of No. 1 mine, you encountered a fault of some kind, did you? not? A. We ran up against a rock wall there.
Q. Whereabouts did you run up against a rock wall in No. 1 mine?
A. I believe it was in the fifth north entry.
Q. Were you still within the section lines of 31, the vertical lines? A. Yes, sir.
Q. So that here, in this very country, and on this very vein, we have a specific instance of where you started to develop a coal mine, and strike a vein indicating a very large and profitable coal bed, and before you get outside of the boundaries of one section you went up against a rock wall?

644 Mr. Burke: Is this a speech or is it a question?

Mr. Kelley: It is a question which will answer, perhaps, the purposes of a speech hereafter.

Q. Is that true? A. That is true.
Q. All of it is true, is it not? A. Yes, sir.
Q. Have you tried to go through that stone wall? A. No.
Q. Why?
A. We put down a drill then and couldn't get anything.
Q. Where did you put down the drill?
A. From the northwest corner there.
Q. On the northwest corner of 31?
A. Yes, sir, somewhere in that vicinity.
Q. Could you indicate on this map by making a mark about the position of that drill hole, if you please?
A. Well, no, I could not be positive, but I know it is somewhere there.
Q. Well, approximately, you know.
A. I think it is somewhere down in there, about that corner.
Q. About the center of the northwest corner?
A. I did not have anything to do with locating that drill; the superintendent located.
Q. It was somewhere in the northwest corner of 31?

A. Yes, somewhere in there.

Q. So that you do know positively that there is no coal
645 under the southwest quarter of 31 where this hole went down? A. Yes, sir.

Q. Now, then, Mr. Griffiths, what is a want, as used in coal mining parlance?

A. Well, where the seam is absent.

Q. Now, then, do you in mining coal frequently strike on slopes what is known as a want?

A. No, sir. That is the first want I have seen in this field.

Q. I say as a general coal mining proposition, that is a recognized condition, is it not?

A. No, not a want. We run up against faults that will throw the coal either up or down, but a want, that is the first want I have seen in this country.

Q. I know, but I am not asking you about this country; I was asking as a general proposition if you do find what are known as wants in coal mining, or if it is found in the business of coal mining, not in your experience, but do you know that as a fact?

A. My only experience is in this case here, or anywhere here in Wyoming.

Q. Did you ever hear of a want before you struck this?

A. Oh, yes; we had them in Montana, but not very frequent.

Q. Did you ever hear of a want yourself, not see it, but did you ever hear of such a thing as a want before you saw this one? A. Not in this field.

Q. Let's start over again. I am not asking about this field now; I am asking you as a coal miner. Do you understand?

A. Yes, sir.

646 Q. If you had ever tell of a want? A. Yes, sir.

Q. Certainly. You did hear of it. Then, it sometimes occurs in the history of coal mining, doesn't it?

A. Oh, yes.

Q. Is there any way that you or any one else, as far as you know, can determine before you explore down are slope, whether you are going to run into a want or not? A. No, sir.

Q. So that wherever you have an outcrop running through a country like this, a possibility is that in going down on the slope you will encounter a want; that is a possibility, isn't it?

A. Yes, sir.

Q. And it was a demonstration here in this particular place?

A. Yes, sir.

Q. Now, then, when I spoke of wants I meant a total disappearance of the seam; did you mean the same? A. Yes, sir.

Q. Now, what is a squeeze?

A. A squeeze is caused by taking out too much coal, and not leaving enough pillars.

Q. I mean a squeeze in the vein itself; have you ever heard of that term? A. No.

Q. It is one that you are not familiar with?

A. It is what they call thinning.

Q. Have you ever heard of thinnings, then, using that term? A. Yes, sir.

647 Q. They are much more frequent than wants, are they not? A. Well, they are in all the fields here.

Q. You mean this coal field?

A. Yes, and Rock Springs.

Q. Tell us, if you please, between what variations do these thinnings run?

A. Well, the seam becomes thinned out until it thins out altogether and there is not anything left.

Q. Has it frequently been your experience in this particular section that you do find places where the veins are thinning?

A. Yes, sir.

Q. And some places where they are broken up and intermingled with dirt? A. Yes, sir.

Q. So that commercial coal mining can not be profitably carried on? A. That is correct.

Q. What have you to say as to whether or not that occurs on this particular coal vein?

A. I can not say; I don't know.

Q. Haven't you had any of them in your Cumberland mine?

A. Yes, sir.

Q. Well, have you seen it there? A. Yes, sir.

Q. Well, what did you mean by saying that you never saw them? A. Well, now, you are going up north of that line.

Q. Well, You don't know what is north down underground in all places, do you? A. No, sir.

648 Q. I am asking you, now what you know about this particular vein where you have been working, where your knowledge extends.

A. Yes. In No. 1 Cumberland, going south, the coal thins there down to four and five feet, and also gets dirt partings in it.

Q. What do you mean by a parting?

A. A parting of slate or shale rocks.

Q. What is the result when you run into it, Mr. Griffiths?

Q. There is no mining; it is not profitable to work those places.

Q. Would you say that land that had coal underlying it where the surface was over these partings or thinnings such as you describe, would that land be very valuable for coal land?

A. No, sir.

Q. Is there any way in these sections that we are talking about, that you can fix any value upon this land for coal mining

purposes on the surface of it, I mean, removed from the outcrop, prior to the time that you actually open it up or develop it?

A. Not unless you use a drill.

Q. Well, that is, of course, determined by drilling down and you find coal or the absence of it? A. Yes, sir.

Q. What else have you encountered besides thinnings and partings and wants in the No. 1 mine?

A. Well, I can't think of anything else.

Q. That is about all that one coal mine could strike, isn't it?

A. I think so.

Q. Now, going up to No. 2, where is that mine, located,
649 Mr. Griffiths?

A. On section 19 I think somewhere near the east line.

Q. The east line of 19?

A. About the center, yes, sir.

Q. When was this mine opened up?

A. About the same time as No. 1.

Q. And you went down on a good coal crop, did you not?

A. Yes, sir.

Q. You had every reasonable expectation to believe that you were going to have a large and profitable coal field to be developed from that mine?

A. Yes, sir; we have some good coal in that mine today.

Q. Have you had any trouble there? A. Yes, sir.

Q. What was the nature of that trouble?

A. Oh, we ran up against this same want.

Q. In what direction did you run up against this same want?

A. In the south entrance; it was struck first, I think, in the third south, about ten rooms, I believe, from the slope.

Q. How far would that be; how far are your rooms apart; how far in feet? A. Fifty feet.

Q. That would be about five hundred feet, then, would it, from the slope?

A. Well, with the pillars, of course, in the slope, it would be about six hundred feet.

Q. Upon what subdivision of section 19, Mr. Griffiths, is your shaft or slope, do you know?

A. It is right on that black spot there, I should think.

Q. Then, it is in the northeast quarter of the south-
650 east quarter of 19, isn't it? A. It is here.

Q. The slope has a descent—

A. It runs north, a little, of the west line.

Q. It runs a little north of west?

A. A little north of west.

Q. Well, how far is it from No. 1 shaft to No. 2 shaft along the strike of the vein? A. About two miles.

Q. Now, about how far north of No. 1 shaft did you drive your entries until you came to this want?

A. I think No. 5 was nearly about the section line of 31; that is No. 5 north. Say nearly to the section line, when we struck that fault.

Q. About far in feet would that be, do you remember?

A. Oh, say twenty-five hundred feet.

Q. Was it as much as that?

A. Yes, the slope, you see, is about in the center of the section.

Q. Now, do you believe that that is the same want that you struck in both of these mines, Mr. Griffiths?

A. Well, I am of the opinion that it is.

Q. Now, these two shafts are about two miles apart; that would be something over ten thousand, four hundred feet, on the basis of fifty-two hundred and eighty feet to the mile, I believe. You have actually mined from these two shafts, northerly about twenty-five hundred feet and southerly about five hundred feet, until you encountered the want, is that true?

A. Well, say a thousand feet.

Q. That would leave a want in there of something
651 over six thousand feet, would it not? A. Yes, sir.

Q. So that out of the two miles along this outcrop, actual development has shown barrenness in over six thousand feet, or seven thousand feet in the underground development?

A. Yes, sir.

Q. Now, you first struck this want on what level of No. 1?

A. I think it was the fifth north.

Q. Did you encounter it on any of the lower levels?

A. Yes, sir.

Q. As a matter of fact, you have encountered it on all the levels below that, have you not?

A. Yes, all the levels going north.

Q. Now, in which direction does this want apparently descend into the earth; do you strike it more northerly or more southerly on the workings as they succeed in depth?

A. We struck it on the slope just below the 12.

Q. The slope itself runs down into this want on the 12th level? A. Yes, sir.

Q. So that the want is traveling in a southwesterly direction? A. Yes, sir.

Q. The want was first encountered at No. 2 mine on what level? A. On the 3rd south.

Q. Have you developed that want in the lower levels?

A. Yes, sir.

Q. What levels?

A. I think we ran up against it on the 4th, 5th, 6th,
652 7th and I think the 8th.

Q. Now, as you encountered it in the workings from the slopes of No. 2, what is the direction of it; is it northwesterly or southwesterly?

A. It keeps about parallel with the slope down to about the 9th, I think, and then runs south.

Q. So that the slope is a little west of north as I understand it; it is west of north as it goes down?

A. North of west.

Q. It is north of west, yes; so that this want as you have developed it from your levels from No. 1 and No. 2, is descending along diverging lines, the most northerly one running northwesterly and the most southerly one running southwesterly?

A. In No. 2 it seems to have made a turn south.

Q. At what level?

A. I think it is at the 8th level. It runs pretty near parallel with the slopes for the first four or five drifts there.

Q. Now, let me ask you this question: Can you tell us how far apart you have developed the extremities of this want at the furthest distance; how far is the furthest distance from your No. 2 mine where you encountered it running south, to your No. 1 mine, where you encountered it running north; what is the greatest width of that want as far as you have actually developed it?

A. Oh, I should say six thousand feet.

Q. Well, it was six thousand feet at the point where you first developed it, wasn't it?

A. Well, I am speaking about that turn now.

Q. Well, I say at the furthest point?

653 A. About the center of 31. You see the slope was down in there about the center.

Q. How far would that be, a thousand or fifteen hundred feet further than where you first developed it?

A. About five hundred feet.

Q. Now, then, I believe you said you don't know whether there are any other wants along this same vein between Kemmerer— A. No, I don't.

Q. Don't you know, as a matter of fact, that every coal mine that has been opened on this vein, the workings have been pinched out by wants?

A. No, I can't say that I do know that, for in No. 2 mine we have good coal there. It is not pinching out in No. 2 mine or thinning out.

Q. No. 2 is the one you are talking about? A. Yes, sir.

Q. That pinches out going south? Well, your slopes run up to this want in No. 2?

A. Yes, but the seam itself does not thin or pinch out.

Q. I am not talking now about the seam; I am talking about coal. The coal is gone as far as any commercial value is concerned? A. Gone where that want is, yes, sir.

Q. Now, have you had any thinnings in No. 2?

A. No, sir.

Q. You don't know about No. 4 and No. 2 and No. 1 Diamondville and those other mines up north there particularly, do you? A. No; I never was in No. 2 mine.

Q. Have you had any experience with the purchase of
654 coal lands for the Union Pacific? A. No, sir.

Q. Does that come in your department? A. No, sir.

Q. I want to ask you about section 30 on this map, that lies between 19 and 31, between No. 1 and No. 2 mines.

A. Yes, sir.

Q. Do you know who owns that section?

A. The Kemmerer Coal Company, I believe.

Q. That is the one Mr. Quailey is connected with?

A. Yes, sir.

Q. I will ask you if it is not a fact that at one time the Union Pacific Company offered Mr. Quailey a hundred thousand dollars for that section? A. I don't know.

Q. As far as section 30 is concerned at the present time, for coal mining purposes it is worth nothing, is it?

A. I don't think a man would give five cents for it now.

Q. That is not because the coal has all been taken out of it, is it? A. No, sir.

Q. It is because the value never was in the coal under there probably, because there is no coal there to mine; that is the reason, isn't it?

A. Well, it is because of what we developed in No. 1 and No. 2 mines.

Q. From that you don't believe that it is valuable for coal mining purposes?

A. That would not say that there is not coal there. It is possible the coal may be found there.

655 Q. Well, from all of your developments now, instead of increasing the value of this section, it has, as a matter of fact, decreased it, hasn't it, very materially?

A. Well, out on the north of that section. South of that I wouldn't give anything for that section myself.

Q. And yet this coal vein on the crop runs directly through the section? A. No, sir.

Q. Doesn't it? A. No.

Q. Isn't this coal vein crop put on here right?

A. No, not down in section 30.

Q. Where is the coal vein down there?

A. There is on the north quarter and on the south quarter—

Q. Where do you think that the coal outcrop should be shown?

A. (Indicating) Just as it enters the section on the south.

Q. Do you mean to tell us that you cannot drive over the country and follow this outcrop at all places, Mr. Griffiths; that there are spots where you cannot see it at all?

A. There is spots there where it is covered up, yes, sir.

Q. This outcrop as indicated on this map has an approximate width of about one hundred feet all along where it runs. Is that correct; is it one hundred feet thick?

A. The outcrop?

Q. Yes. A. The seam itself?

Q. Yes. A. I don't think the seam, is a hundred feet thick.

Q. And you don't know any place where this would be a correct representation of it on the Government's map,
656 assuming that it runs from seventy-five to a hundred feet thick, as shown here? A. Does that map show that?

Q. Well, I am assuming it.

A. I don't know of any place where it is over twenty feet.

Q. Now, it is true with reference to this outcrop wherever you are familiar with it, that it is broken in spots; in spots you can see it and in spots you cannot? A. Yes, sir.

Q. And that is it at infrequent and irregular intervals, is it not? A. It is covered over with wash.

Q. There is half a mile of that sort of covering right on section 30, as I understand it, or more? A. Yes, sir.

Q. Now, then, let us go north to No. 3 mine. Did I understand you to say in answer to Mr. Burke's question that you had some thinning out of the coal there?

A. On the north half of the section, yes, sir.

Q. On the north half of the section the coal is thinning out, is it? A. Yes, sir.

Q. Of course, you don't know whether it has now thinned out completely or not, do you? A. I do not, no, sir.

Q. You would not undertake to tell me, as a coal miner of some forty years experience, whether you will have any coal when you go down on that slope a couple of hundred feet or five hundred feet farther, will you? A. No, sir.

Q. Positively. You could express an opinion about it,
657 and that is all? A. That is all.

Q. You could not take an oath that there is coal under there, could you? A. Not unless I could see it.

Q. Suppose that, in order to classify section 24 and section 12 on these maps—suppose that in order to classify section 18 in township 20 north, range 116 west, the westerly portions of sections 20, 30, 6 and 12 over here and the portions colored red in 18, which are removed quite a distance from the crop—suppose in order to classify that ground you have to make a solemn

oath that of your own positive knowledge there was coal under that surface and at the time you were required to take an oath there was actually no development, which showed any coal under that surface, and there was no development to speak of at all on the vein east of that ground, could you take such an oath, that there was coal under that ground?

A. No, sir, I could not.

Q. You would even hesitate to venture the merest kind of a professional opinion that there was coal under, wouldn't you, in the absence of development which showed it?

A. Yes, sir; that is, from the outcrop and the way the coal was dipping, I would suppose that there would be coal under that land.

Q. That there might be coal under that land?

A. Yes, but to swear that there was coal there, I couldn't do it.

Q. You are not employed by the Government? A. I think not.

Q. Now, when you hazard an opinion, as it is suggested
658 that might, from the dip and the outcrop, that there might be coal under there, that would be the limit of your opinion, wouldn't it? A. Yes, that would be the limit.

Q. Would you under any circumstances, in the absence of development, and merely from the outcrop as indicated upon that map, hazard an opinion that there would be any workable or commercially valuable coal under land lying away west of the outcrop? A. Not without first prospecting or drilling.

Q. Therefore you could not say under any circumstances that the land lying off west from this outcrop, in the absence of any development or knowledge concerning the matter, would be more valuable on the possibility of there being some coal under it, could you?

A. There would be a possibility, of course, of coal being there. If it showed on the outcrop, dipping in that direction under that land.

Q. In the first place, when you go down there, there may be no coal there? A. There may be no coal there, yes, sir.

Q. In the second place, if there is any coal there, it may be too thin to work?

A. Yes, it might be all split up or broken up.

Q. In the first place, there might be no coal, and second, if there was coal, it might not be any good? A. Yes, sir.

Q. As a matter of fact, in Spring Valley they had to abandon it because the coal was just broken up in that way and they could not make it commercially valuable, isn't that true?
659 A. No, sir, that was not the cause.

Q. What was the cause.

A. Too much surface pressure, a bad roof.

Q. What did surface pressure to do with your abandoning the mine?

A. Because of the crushing of the mine, it was too expensive to keep it open.

Q. So that where you get a roof that lies so heavy on the coal that you either have to leave too much for pillars, or put in too much timber, you cannot work a mine economically, can you? A. Yes, sir.

Q. Then do I understand you to say that the depth to which you can work along the slope depends altogether upon the character of the roof?

A. Yes, and depends on the system that you work your mine.

Q. How do you mean depends upon the system?

A. That is, in driving your entries, say, two your boundary line, and then working from that up, and not taking coal out as you advance; working what they term the retreating system.

Q. That means coming back up?

A. Yes, coming back. Drive your entries to your boundary lines and then work back.

Q. Of course, if a man has got simply a small tract of coal lands, as a general proposition he cannot afford to work it that way, and he does not, does he?

A. He wants to get returns as quick as he can.

Q. He wants to get coal out as quick as he can. Now, no matter what system you pursue, is there a limit beneath which you cannot work on account of your roof pressure and the cost of maintaining timbering and of leaving coal in?

660 A. No, I dont believe there is; it depends altogether on the system that you work.

Q. Do you mean to tell us that if you retreat, you can go down any depth whatsoever?

A. Well, I think so.

Q. Without respect to the character of the roof?

A. Yes, sir.

Q. The roof dont make any difference?

A. Oh, of course, it is more expensive if you have a bad roof.

Q. I am talking about pressure now, not the theoretically best way of working these mines in that vicinity. They have had to abandon working in some of them, because the pressure was so great that the coal would squeeze together and and break up so finely that it was not worth while taking out; have you ever heard of that occuring?

A. Well, yes, sir.

Q. Now, you have also heard of mines having to be abandoned because it became so expensive to operate them that it could not be done commercially? A. Yes, sir.

Q. So that another factor that necessarily enters into the consideration as to whether any area of land is coal land or not, when it is removed some distance from the vein and you have got to go down under it, is whether or not the roofing will be of such a character that you can go down and take the coal out; isn't that so?

A. Yes, roofing and bottom; it depends a good deal on those as to the expense of getting out the coal.

661 Q. What have you to say as to whether it would be cheaper or better to mine coal down the slopes from the outcrop or to go off and sink a vertical shaft and mine it either by upraises from the bottom of the shaft or sinking the shaft down and mining under hand from there down?

A. Well, it would be cheaper to go from the outcrop with a slope.

Q. In many cases it is true that you can mine land where it is continguous from the crop down, where you could not mine it at all if you had to go over and sink a shaft and go down and get it; isn't that true.

A. Yes. You mean the depth would be too great.

Q. The depth would be too great and the cost of handling it would be too great. The breaking up of the coal would cause losses, and other factors which enter into it, might they not?

A. Oh, they are working pretty deep shafts now.

Q. Not in this country?

A. Not in this country, but in Pennsylvania.

Q. They are mining pretty good coal there too, aren't they?

A. Yes, pretty good coal.

Q. And they are not paying—

A. Still, they have the pressure, though.

Q. But I am talking now about the economic mining. You could not do that out here in this country with this kind of coal and work it commercially at a profit, could you?

A. Well, the cost would be for the shaft, sinking the shaft.

Q. Well, you would have to handle your coal, wouldn't you, more times? A. Yes, you would.

662 Q. You would have to hoist it vertically?

A. Hoist it vertically, and then get to the top of it and hoist it up to that, and so on.

Q. The whole operation would be costly?

A. It would cost more than going down from the outcrop with a slope.

Q. Now, if you only had a comparatively small tract of land to work in that way, that would be another factor to take into consideration, wouldn't it? A. Yes, sir.

Q. Of course, I suppose if one had a great, big field one might take a chance of mining it that way, whereas if they only had a very small tract of land they would not; isn't that true?

A. No, they cannot sink any deep shaft for a small sized piece of land.

Q. Now, then, Mr. Griffiths, before you sank a shaft and started to open up a coal mine in that way, you would necessarily have to develop it, wouldn't you? A. Yes, sir.

Mr. Burke: I feel compelled here to interpose an objection, that counsel has gone away beyond all limits and bounds in his cross-examination, from the testimony of the witness in chief, and he is simply consuming hours of time in making the witness his own, and I object now to this being pursued further, unless he desires to make the witness his own. I have refrained from interposing the objection, recognizing that he had an expert on the stand and a man of intelligence and a man of absolute veracity and character, in the view that the Court should have from this man a general and broad
663 knowledge gotten from his experience. But the time has now come that we are consuming hours of time on a cross-examination which is improper.

Q. What do you say as to whether or not it would be considered good business to go out on one of the sections of land, any of them shown on the map there, some distance removed from the outcrop, and without knowing the developments were underground, to sink down a shaft on a quarter section of land for the purpose of opening up a coal mine. Would you consider that was a practicable and professional or sensible way to develop that coal land? A. No, sir.

Q. As a matter of fact, you know, do you not, because of the general faulted and wanted and thined and irregular character of this vein that you have testified to, that it would be an extremely hazardous and uncertain proposition?

A. Well, there are no faults; I don't know of any faults in this vein.

Q. Well, we will restrict it to wants and thinnings and partings and irregularities of the outcrop. Under those circumstances it would be an exteremely hazardous and uncertain proposition?

A. Yes, to put down a shaft without doing any prospecting before hand.

Q. Now, Mr. Griffiths, you testified in answer to a question by Mr. Burke, I believe, that you had coal in the No. 3 mine along the easterly boundary of section 18?

A. Yes, sir, we have got very good coal there.

Q. When did you uncover that coal; at what date about?

A. I couldn't say what date.

664 Q. Could you state what year?

A. We had men there working.

Q. At the present time?

A. No, sir, at the time the mine was opened, but at the time we were opening up No. 2 mine, we had some men working on the outcrop then along there.

Q. You don't understand.

A. You mean open up that mine?

Q. No. In going down the No. 3 mine, it is in depth where you found coal near the section line—in going down No. 3 mine, in stoping down, you have got to the limit of your boundary? A. Yes, sir.

Q. And you stopped, of course, along the vertical plane of the section line? A. Yes, sir.

Q. When was it that you got down to that point?

A. Well, I couldn't say when it was.

Q. It has been comparatively recently, hasn't it?

A. In the last year, yes, sir.

Q. Within the last year. Prior to that time, of course, you didn't have any coal exposed along the dividing line between 17 and 18 in depth, until you got down there?

A. No, not till we got down with the workings of No. 2 mine and No. 3 mine.

Q. And of course, by that time you had gone down a considerable distance and had done a vast amount of development, before you got down to the coal at that point, did you not?

A. Yes, sir.

Q. Now, have you prospected this vein southerly from

665 Cumberland? A. Yes, sir.

Q. Have you opened up any mines on it?

A. I think we opened up one on section 13, I believe.

Q. In what township is that?

A. That would be the township south of Cumberland.

Q. How far south have you prospected this vein of Cumberland? A. Down to Spring Valley.

Q. How far is that in miles?

A. I believe that would be in the neighborhood of about eighteen miles.

Q. Outside of the mine that you have opened on section 13, Mr. Griffiths, have you opened up any other mines on that vein as yet?

A. Well, we have not opened up any mines; we have just done some development, just prospecting work, by driving tunnels.

Q. You have just prospected? A. Yes, sir.

Q. You have not got any mine on section 13, have you, as a matter of fact?

A. No, just a prospect hole there on the drift.

Q. As that vein goes along down south there, it is of a more or less broken up character in places, is it not?

A. It is.

Q. It thins out? A. Yes, sir.

Q. And is not a particularly valuable coal vein is it, except perhaps occasionally in spots?

A. It is very irregular.

666 Q. So that as far as you have actually done prospecting on this vein, you find it of character and extent, a very irregular, broken up vein with good coal along the strike at irregular places? A. Yes, sir.

Q. Now, then, have you done some drilling besides your prospecting along the crop?

A. We have done some drilling on 19; that is down south.

Q. I mean just along the outcrop at different places?

A. We have done some drilling south of the workings from No. 1 mine.

Q. Have you only done drilling in one place south there, or in different places along the strike?

A. Oh, at different places.

Q. Have you gone off west on the dip and drilled holes down there?

A. We drilled to the dip on section 13, I think it was.

Q. Any other place?

A. And south of the workings of No. 1 mine.

Q. Have you in any of these drill holes which you have sunk off the crop, found the vein to have disappeared?

A. No, sir.

Q. In any of these places have you found coal of the character that would justify you in sinking?

A. We found coal with bands of dirt, parting.

Q. Well, that coal would not be worth while going down to get, would it, if it was all like you got in the drill?

A. No, sir.

Q. So that, on how many occasions, how many of these holes have you found partings of dirt?

667 A. I don't just remember how many holes we put down; I believe there was three.

Q. In how many of them did you find partings in the coal? A. We found it in them all.

Q. So that, as far as you know from your development south of the workings of No. 1 mine, your development actually shows up to this time no coal that would be sufficiently profitable to justify the Company sinking down for the purpose of extracting it; isn't that true? A. Yes, sir.

1-30 P. M.

Cross-Examination of Mr. Griffiths, resumed:

By Mr. Kelley:

Q. Mr. Griffiths, I understood you to say this morning that you had done considerable prospecting south of the Cumberland on this vein? A. Yes, sir.

Q. Up to the present time you have started no mine south on this vein? A. No, sir.

Q. And as far as your prospecting has disclosed up to this time at least, from the developments thus far made, no place has been exposed which you have deemed sufficiently good to begin the extraction of coal for the purpose of making a mine?

A. That has not been decided on yet; there are some good prospects, some.

668 Q. But they are merely prospects at this time?

A. That is all.

Q. And these are comparatively few compared to the amount of prospecting? A. Yes, sir.

Q. Now, you spoke this morning of having observed coal in a couple of prospect holes, I believe, northerly from Cumberland on the outcrop, did you not, in answer to Mr. Burke's questions, you said you had seen the outcrop exposed in one or two prospect holes? A. Just north of 17, I think.

Q. North of section 17. That would be in township 19-116?

A. It would be on that line between section 8 and 17, in there somewhere.

Q. What was the character of the vein as exposed in that hole? A. It was split up with partings.

Q. You would not consider that to promise much in the way of coal beneath that point, would you?

A. On the dip, you mean?

[A.] Yes; there was not much there exposed?

A. Not exposed in that opening, no.

Q. It was not a commercial proposition where it was exposed, was it? A. No, sir.

Q. Where else did you observe a hole north of Cumberland?

A. In what we call Skull's Gap.

Q. Where is that place?

A. I could not say what section it is on; it is probably three miles, I should judge, south of Glencoe—two or three miles, somewhere along there.

669 Q. Right along here about section 32 or section 5, somewhere in that vicinity? A. Somewhere in there.

Q. What was the character of the coal that you observed in that you observed in that prospect?

A. Well, that was somewhat similar to the others.

Q. It was not a commercial proposition?

A. No, what I saw.

Q. Now, I went to ask you, Mr. Griffiths, if you are familiar with this intervening territory here between this coal on the west of the map and the coal vein that you have been talking about on the east; which is in a sort of a valley there?

A. Yes, sir.

Q. Are you pretty familiar with this valley land in through there? A. No, I am not.

Q. Are you familiar with any part of it west of the Kemmerer-Cumberland coal vein?

A. West of No. 2 mine I am.

Q. That is over in this vicinity? A. Yes, sir.

Q. Outside of this one coal vein, there is nothing on the surface of this land west of that vein, anything in the way of coal, is there? A. Not in the valley, that I know of.

Q. So that, that No. 2 mine, you are familiar with the valley land lying west of the outcrop of the Kemmerer-Cumberland mine there, are you? A. I should say for a couple of miles.

Q. Is there any indication of coal at any place along in there west of the outcrop? A. No.

670 Redirect Examination

By Mr. Burke:

Q. Mr. Griffiths, you say there is no indication on the surface of any of these lands lying immediately west from Cumberland? A. Not that I know of in the valley.

Q. The Union Pacific Coal Company has purchased section 36, has it not? A. I think so.

Q. When did they purchase that?

A. After they had opened up No. 1 mine.

Q. That is, after the commencement of the opening?

A. Well, I couldn't say just what time. I think that I had opened probably three or four drifts there.

Q. For what purpose did they purchase No .36?

A. For the purpose of working out coal, that is, getting coal from under that section.

Q. And because they deemed it to be coal land, wasn't it?

A. Because they deemed it to be coal land, yes, sir.

Q. You stated that you had worked in Indiana, didn't you, in coal? A. Yes, sir.

Q. And in Iowa? A. Yes, sir.

Q. Now, in Iowa the coal lands are not indicated by outcroppings, are they? A. No, sir, they are not.

671 Mr. Kelley: That is objected to as entirely incompetent, immaterial and irrelevant. The purpose of the cross-examination was merely to get the experience of the witness. You qualified him as an expert, and unless the conditions are shown to be absolutely similar—the Supreme Court of the United States has passed upon that question, of course.

Q. So that the question as to whether land is to be said to be coal land or not is not dependent upon the fact as to whether the coal has outcropped on the surface or not, does it, Mr. Griffiths? A. No, sir.

Q. Now, in answers to Mr. Kelley's questions you have said, I believe, that you would not swear positively that there was coal under sections 18, 30, 6 and 12, as marked in red on this plat, because you find the outcrop along the line as indicated on the map by the red line. That is correct isn't it?

A. How is that?

Q. (Question read.)

A. I could not swear that there was coal under that land, or I could not swear that there was not.

Q. You would not swear that there was not? A. No, sir.

Q. But when you found the outcropping of a vein, the pitch at which it is indicated by the outcropping then, you would be led to judge that there was or was not?

A. Unless the coal was pinched out or thinned out or wanted, the coal should be under those sections.

Q. In the natural course of events it should be under
672 those sections?

A. The way it is, but I could not swear that there was any coal under there, or that there was not.

Q. That is what led you to advise the opening of a coal mine at Cumberland, was it not?

A. That was it, on what the outcrop shows.

Q. The same as to Cumberland No. 2 on 19?

A. Yes; there was not any drilling or prospecting done, only the outcrop.

Q. And the same is true as to Cumberland No. 3 in section 17? A. Yes, sir.

Q. And did I understand you correctly to say that where you stopped operating in Cumberland No. 3 on the section line between 17 and 18 the vein was the same?

A. That is, in the south half of the section.

Q. The south half of 17, it was some fifteen feet thick?

A. The vein is from ten to fifteen feet.

Q. Now, you have testified in answer to Mr. Kelley's questions in relation to finding a want on the north, as I understand it, of your Cumberland No. 1? A. Yes, sir.

Q. And as I understand it, you believe that you found the north side of that want on the south side of the opening of your Cumberland No. 2, in 19? A. Yes, sir.

Q. And I understand you that in studying the outcrop through section 30, being the section between these two mines, that you did not find a cropping through the central portion of that section as the line of outcropping on the map shows it to run?

673 A. No, there is nothing shown on the surface. There is on the north side of the section and on the south.

Q. What did that indicate to you as a practical miner, as to whether there was probably coal on the central part of 30?

A. Well, we didn't do any work on there at all. That land belonged to some one else and we didn't do any work on that land.

Q. It belongs to some one else? A. Yes, sir.

Q. Wouldn't the fact that you did not find anything in the outcropping along the center of that section, rather indicate that there might be a break in the vein under the section, itself?

A. Yes, sir; although it was possibly covered over with wash; I dont know.

Q. I understand, and wasn't it a place where you would, from the outward indications, expect from the general lay of the vein—you would expect to find coal, but it has either been washed out in the ages past or in some way been removed and filled in with some other substances? A. Yes, sir.

Q. In other words, it is a defect in the vein that can be found almost anywhere in a coal vein?

A. That is the first one I know of in this state.

Q. And that one was rather running to the south and west, was it not, in its formation? A. South and west.

Q. And away from these lands that are in controversy in this case?

A. It runs south from the workings of No. 2 mine. It kept parallel with the slope, I think, down to the 8th; I am not positive; then, it strikes off south. In No. 1 mine

674 we struck it in the 5th north, near the line, and down at the 12th it crossed the slope, just below the 12th.

Q. Mr. Griffiths, the expense incident to the opening of a mine is very considerable, is it not?

A. It was in the case of the Cumberland mine.

Recross Examination

By Mr. Kelley:

Q. Mr. Griffiths, this space that you indicated on section 30, I understand, where the outcrop is not exposed, may be covered by wash, is that not true? A. Yes, sir.

Q. And you do not mean to say or infer that there is any relation between this outcrop that you find near there and this want that you encountered in depth?

A. I couldn't say.

Q. But dont you mean to say that this want that you have found in depth is indicated on the surface by a break of the outcrop, do you? A. Well, it is possible.

Q. It is possible, but you dont want us to believe that that is your testimony that it is? A. No.

Q. Neither do you wish us to believe that a want in depth where you have encountered it on the slope is always indicated by a break in the outcrop, do you?

A. No, sir; it does not show in the outcrop.

(Witness excused.)

Filed Oct. 15, 1909. John D Jordan, Clerk.

675 Arthur C. Veatch, recalled on behalf of complainant:

Direct Examination

By Mr. Burke:

Q. What is your profession, Mr. Veatch? A. Geologist.

Q. Have you worked at it? A. Yes, sir.

Q. To what extent?

A. I have been working on geology nearly all my life; it is my natural inclination.

Q. Did you start in under conditions which led you to make a study of geology? A. Yes, sir.

Q. Where were you living as a boy?

A. In the southern Indiana coal fields.

Q. And you had opportunity to observe and study the formation of the coal fields as a boy?

A. Yes, very excellent opportunities, as there were very many mines in the town in which I lived. My uncle was manager of a large mine, and I visited him.

Q. Now, what have you followed up in the line of geological work, and what particular branch of that work?

A. My special work has been stratigraphical geology and non-metallic economic geology.

Q. Where and under what conditions have you practiced your profession in those lines?

A. My first work was done in southern Indiana in 1896 and 1897. I was in charge of a section of the Indiana Uni-

676 versity survey in southern Indiana in the summer of 1897; was assistant in the geological laboratory of the Indiana University in the winter of 1897-98; was a member of the Cornell University Geological Survey in the summer of 1898, working through the Atlantic coastal states and the gulf states. In the fall of 1898 I was appointed assistant state Geologilist

of the State of Louisiana, and in that position I remained until 1900, when I went to Cornell University, as assistant in charge of the stratigraphic and aerial geology in Cornell University summer school, the field geology. I was assistant in Cornell University in geology during that winter and again the following summer. In 1901 I left the Unievrsity to engage in private work in Texas, and left that work to become Professor of geology at the State University, and State Geologist of Louisiana. I left that in the fall or winter of 1902, in charge of investigations for the United States Geological Survey in stratigraphic geology in Louisiana, and southern Arkansas and eastern Texas. Since that time I have been in charge of the work of the United States Geological Survey in various parts of the United States.

Q. You recently have been where in the pursuit of your profession? A. I was down in Australia.

Q. You are connected with the Geological Survey, a branch of our Government at the present time, are you; in the employ of the United States? A. Yes.

Q. Now, have you made a survey and examination as a geologist of this region in which the lands in controversy lie?

A. Yes.

677 Q. And when? A. In the summer of 1905.

Q. Did your survey and investigation of that region have anything to do with any supposed or alleged fraudulent land transactions in that vicinity?

Mr. Kelley: Defendant objects on the ground that it is wholly immaterial what the purpose of his survey was.

A. None whatever.

Q. Did you know of any such complaints or charges or propositions? A. I had heard of none.

Q. Then, I understand that your survey was entirely independent of any supposition or investigation of any land entries as made there?

A. Entirely so. I was ordered to make a scientific investigation of the region in the vicinity of the Oregon Short Line in Uinta County, with special reference to the coal of the region.

Q. How long a time were you engaged in making that geological investigation? A. Practically one hundred days.

Q. Did you have any one associated with you and connected with that work?

A. Yes; I had two, and for part of the season, three geological assistants.

Q. Now, will you state as briefly as you can, but thoroughly, as to what that work consisted of, and then, what the total results of your investgiations were.

678 A. We prepared an aerial geologic map of the region, also a topographic map, the aerial geologic map showing the outcrops of the various formations and the principal coal seams, the points at which the seams had been tested, and it involved a detailed report on the general resources of this region.

Q. Did that involve not only the investigation of coal or other metals, but also of the soils? A. Yes.

Q. And the waters, and topographically the lands, as to how they could be utilized, or not?

A. Yes, we made an investigation of the soil, and prepared a map showing the irrigated and irrigable lands of the region.

Q. Now, what sources of information did you have access to, if any, other than those of observation, those which you drew from your own knowledge or observation?

A. I called upon the various coal companies and explained the nature of our work, and asked for such data as they could supply from their records. I called on the Union Pacific Coal Company, the Diamond Coal & Coke Company and the Kemmerer Coal Company, and was in all cases supplied with material in kindly fashion.

Q. For instance, did you have the map which has been introduced this morning from the Union Pacific Coal Company?

A. Yes; that was one of the first things supplied to me. We had that map in the field; we had a lot of maps in the field in fact, and checked them very carefully on the ground.

Q. What did you find to be true as to the representation of the matters that are recorded in that map of the Union Pacific Coal Company?

679 A. I found it was a very reliable map.

Q. What maps did you have, if any, from the Diamond Coal & Coke Company?

A. I had maps showing the coal lands of the Diamond Coal & Coke Company in the region of No. 1 and No. 2 and No. 4 mines.

Q. Did it show the extent of the workings in those mines at that time?

A. Yes; the workings were shown on there, also the territory under which they proposed to work.

Q. How far west of the outcropping, as indicated on exhibit No. 280, did the workings of those mines extend?

Mr. Kelley: Defendant objects to this first, upon the ground that all maps, data and information furnished by private corporations and individuals to the Geological Survey, are confidential and private matter, and that it is a violation of confidence on the part of any one connected with that survey to divulge the contents of those maps in private controversies, either between individuals or with the Government. Second,

for the reason that it is incompetent, irrelevant and immaterial, insofar as the date upon which these maps were complied and furnished to the Geological Survey of the United States Government has not been shown. Further, for the reason that the maps furnished did not bear or have expressed upon them any information or admission as to where the Company proposed to work, but that it was a mere map of the property holdings of the defendant Company. Lastly, for the reason that the map itself is the best evidence of what was contained therein. Of course, Mr. Burke means, as shown on the map.

680 Mr. Burke: I did not say as shown on the map.

Mr. Kelley: Then you should caution him not to testify from the map, but to give information outside of the map. That is all the question calls for.

A. I know nothing only from the maps furnished me by the Diamond Coal & Coke Company.

Q. Have you those maps? A. I have.

Q. Will you produce them?

A. I think it should be explained in this connection, from the standpoint of the Geological Survey, that the Geological Survey is not to be charged with the violation of confidence in this matter, for the reason that I went to Mr. Snedden. Mr. Snedden took me to the office containing these records and told me to help myself. I felt that that was a rather large privilege, and asked him if there was any material in there that he desired the Geological Survey to regard as confidential. Mr. Snedden stated that he did not, that the Diamond Coal & Coke Company had nothing which it wished to conceal.

Q. And you had complete access to their records, did you?

A. Yes.

Q. Of their workings? A. Yes.

Mr. Kelley: May I ask Mr. Veatch a question?

681 Mr. Burke: Yes.

Examined by Mr. Kelley:

Q. Mr. Veatch, the Geological Survey, in platting and developing the mineral resources of the West, have been dependent to a very large extent upon the corporations and individuals who were engaged in operating and developing those resources, has it not? A. That is right.

Q. And it is the custom of the Survey to send the men in charge out into the country which is to be investigated, and have them call upon the operators? A. Yes.

Q. The information that is given to the Geological Survey is supposed to be given under the tacit understanding that it

is purely for the purpose of enabling the Government to arrive at a proper classification of its lands, isn't it?

A. Well, I think you have misstated it a little bit. The Geological Survey undertakes to regard any information as confidential, in case it is so requested, or in cases where there is no statement to the contrary.

Q. Then, do you mean to say that it is the practice of the Geological Survey to make public all matters which are given to it in those conversations between the operators and the members of the Survey, unless there is an express stipulation that it [it] should be confidential?

A. Well, unless there is an express stipulation that it is not confidential. In this case there was an express stipulation that it was not confidential.

682 Q. At the time that Mr. Snedden gave you this information there was no lawsuit pending against the Diamond Coal & Coke Company, was there?

A. No, I know of none.

Q. And at that time there was none comtemplated?

A. I know of none.

Q. Now, fairly, as man to man, do you feel that, if Mr. Snedden had supposed that you would hereafter, in a suit of this character, endeavor to make use of this confidence, that he would have given it to you in the manner that he did?

Mr. Burke: Complainant makes the same objection, that it is immaterial and irrelevant.
any such communication confidential.

Mr. Kelley: There is a law which is regarded by a great many members of the Geological Survey, from whom I have expressly learned that such confidences are not to be divulged.

Mr. Burke: I do not think this should be in the record.

Mr. Kelley: I want the record to show this. I think the sooner that the people understand that confidences are not to be regarded by the United States Government, the sooner they will be able to protect themselves.

A. I do not think there is any breach of confidence. There was no confidence. I asked him fairly and frankly—

683 Q. That is not the question. I asked you if you thought that Mr. Snedden, if he knew that the information that you were becoming possessed of would subsequently be used in a suit of this character, in an attempt to disadvantage the Diamond Coal & Coke Company, would have given it to you?

Mr. Burke: Complainant objects to that on the ground that it is immaterial and irrelevant. There is no law which makes

A. He made a very frank statement to me, that the Company had nothing that they wished to conceal?

Q. Will you answer my question, yes or no. You can explain it afterwards, of course, if you want to.

Mr. Burke: Complainant objects on the ground that the witness has already answered the question.

Q. You understand the question. If Snedden thought or knew or understood that you were taking this information and that it was subsequently to be used in a case of this character to the disadvantage of the defendant Corporation, do you think that he would have given it to you?

Mr. Burke: Objected to as incompetent, immaterial and irrelevant and entirely improper.

A. His statement was merely to me—

Mr. Kelley: Answer my question yes or no, and then you can explain afterwards.

684 A. His statement to me—

Mr. Kelley: I insist on the witness answering the question negatively or affirmatively. We have a right to that.

The Master: Then he can explain afterwards.

Mr. Burke: Put your [insustence] in the record and let us go on.

Mr. Kelley: No, the witness will either answer the question or we will take it to Judge Reyner in Cheyenne. We insist on a direct answer, or we ask to have the matter certified up to the Judge.

The Master: I think you ought to answer the question yes or no, and then you can explain.

A. Do I think that Mr. Snedden would have given me something?

Q. Would have given you this information, if he knew that you were going to use it, or might use it, to the disadvantage of the Diamond Coal & Coke Company in a suit of this character. That is a plain question. Do you think he would?

Mr. Burke: Complainant makes the same objection, that it is incompetent, immaterial and irrelevant.

A. Why, I should think not. It is my understanding of Mr. Snedden that he would not.

685 Mr. Kelley: He did not understand your proposition, or he would not. That is all.

Examination Resumed

By Mr. Burke:

Q. Will you produce such maps as were furnished to you, showing their workings at Diamondville, as to the extent to which they had gone at that time west, and as to the extent to which they proposed to mine.

Mr. Kelley: That is objected to on the general grounds previously stated, and also for the reason that it is not shown that these workings were made, or what developments were made at the time this land was sold by the United States Government.

A. (Producing maps) The maps bear date March 15th, 1904.

Maps produced by witness, marked plaintiff's exhibits, Nos. 308 and 309.

Q. Now, can you state from those maps as to the distance west from that cropping that they indicate the working, and the distance to which they proposed to work?

A. In the case of No. 1 mine the distance is approximately three-quarters of a mile.

Q. As having been worked?

A. Yes, as shown here.

Q. What distance do they outline or indicate the purpose to work?

A. There is no limit as to the working boundary; it is marked the boundary of the Diamond Coal & Coke Com-
686 pany's land, and that lies a distance of about a mile and a half from the outcrop.

Q. What is the second map marked exhibit No. 309?

A. That shows the No. 4 mine, the same sort of a map. In that the workings extend a little less than half a mile.

Q. And what indication as to the distance to which it is proposed to work?

A. They propose to work a mile and a half from the outcrop.

Mr. Burke: We now introduce in evidence the two maps, marked complainant's exhibits Nos. 308 and 309.

Mr. Kelley: They go in subject to the objections heretofore made by defendant.

Two maps referred to, admitted in evidence as complainant's exhibits Nos. 308 and 309.

687 Q. Did you ascertain in your study and examination of that country, as to the extent to which it had been prospected by the Diamondville Coal and Coke Company?

A. No; I have no data as to their prospecting especially, except records of Diamondville borings.

Q. Where did they occur, if you know?

Mr. Kelley: Objected to as incompetent, irrelevant and immaterial, for the reasons, first, that the time at which these borings were made has not been shown; second, that it has not been shown that the borings were made by the defendant Corporation or that they had any knowledge as to what was disclosed therein, but on the contrary, it affirmatively appears from the testimony of the witness that any information which he has with reference to these prospects was obtained long after the land had been sold by the United State Government.

A. The location of the pits is shown on the section.

Q. You have a map, have you, that you obtained from them showing those?

A. Yes, cross section J. R., with the locations shown on a sketch map on the face of it. There are four holes, one in the northwest quarter of section 24.

Q. What township and range?

A. Township 21, range 116. There is one in the southwest quarter of section 4, township 20 north, range 116, one in the northwest quarter of section 22, of the same township and range, and one in the southwest quarter of section 5, township 19 north, range 116 west.

688 Q. Where else?

A. Those are the only four that I have from the Diamond Coal & Coke Company.

Mr. Burke: Complainant now offers in evidence this map, and asks to have it marked complainant's exhibit No. 310.

Mr. Kelley: Defendant objects to the exhibit No. 310, upon the ground that it is incompetent, irrelevant and immaterial under the issues in this case, for the reasons heretofore stated, and particularly for the reason that the date at which these drill holes were made does not appear, and it does not appear that the defendant Corporation had any knowledge or was aware of anything shown in these borings at the time it purchased these lands from the United States Government, the lands in controversy in this action; further, for the reason that, as to some of these holes the map does not apply to premises in controversy in this action.

Q. Does this map indicate the time at which these borings were made? A. Yes.

Q. You may take the map again and state the time of the several borings and state the result of the borings as to the discovery of coal, and to what extent.

A. The record shows that the first hole was begun on May 9th, 1900, and that the last hole was finished on August 10th.

By Mr. Kelley:

Q. Are you giving them in the order in which you gave them before?

689 A. No, the order is different. The numbering of the holes is such that my original No. 1 is the same as this No. 1

By Mr. Burke:

Q. Now, Mr. Veatch, take them in order and refer to the section in which they occur, and then give the result as shown there.

A. The hole in section 24, township 21 north, range 116 west, was commenced on May 9th, 1900 and finished on June 1st, 1900. The hole in section 4, 20 north, 116 west, was commenced on June 22nd, 1900, and finished on August 10th, 1900.

Q. Give the results of them as you go along.

A. In the first hole there are four coal seams encountered, four or five, but only one deserving much attention, which is three feet, six inches. The rest are all very small, showing practically—

Q. That is in section 24?

A. That is in section 24.

Q. Now, take the second hole.

A. The second hole is in section 4, and was commenced on July 22nd, 1900, and was completed August 10th, 1900. It shows several thin veins of coal, the thickest of which is only two feet.

Q. Now, the next one?

[Q.] The one in section 32.

Q. 32 where?

A. According to this plat, it should be right over here.

Q. That is near the northeast corner of the northwest quarter of 32?

690 A. Yes, just west of the outcrop.

Q. Go ahead.

A. That shows a six foot bed of coal at a depth of eighty-seven feet, and several minor coal seams below that.

Q. Give the date of that.

A. That was commenced June 10th, 1900, and completed on June 20th. The hole in section 5, 19 north, 116 west, is located in the northeast quarter of the southwest quarter, and shows two beds of coal of any thickness, one five feet and the other four feet, ten inches.

Q. Is that all? A. Yes.

Q. That section 32 that you spoke of is section 32 in township 20 north, isn't it?

A. Yes, township 20 north, range 116 west.

Q. Are those all of the exploitations that you received the record of from the Diamond Coal & Coke Company?

A. Yes, that is all.

Q. Now, to what extent did you verify the map and their exploitations as indicated by the map, of the Union Pacific, in connection with this map that has been introduced in evidence.

Mr. Kelley: Objected to by defendant on the ground that it is incompetent, immaterial and irrelevant for the reason that the Union Pacific is not a party to the action, and their exploitations and developments refer to lands not embraced in the controversy in this action; further, for the reason that it has not been shown at what time these exploitations were made, or that the defendant Company had any knowledge of them at the time of the purchase of his land from the United States Government.

691 A. We checked them in the field until we were satisfied that they were essentially correct. We did not verify every pit.

Q. Now, then, what survey, if any, did you make for the purpose of locating the outcropping of this vein that has been spoken of here as the Diamondville-Cumberland vein?

A. We surveyed the land lines along adjacent to the outcrop, locating the outcrop with reference to the land corners.

Mr. Kelley: Defendant moves to strike the answer of the witness from the record for the reason that it is not responsive to the record, nor an answer to the question, in that the witness was asked as to what verification or survey he made, and he answered "we". Those who participated in the plural are not designated.

Q. Did you participate in that survey, in that ascertainment of the location of that vein? A. Yes, sir.

Q. What did you ascertain as to there being a vein, and of what character?

A. There is an outcrop of coal, a coal bed there, or rather, it is a group of coal beds, rather close together, which varies

in thickness from nothing up to twenty feet, or slightly over twenty feet. The bed is very persistent throughout its entire length of many miles up and down that region.

Q. And I think you stated, did you not, that the outcrop is indicated correctly on that map?

A. Yes, that is the approximate location.

Q. Now, what is true as to that outcropping, as to whether it is uniform as it runs north and south there; I mean,
692 do you find the same outcropping all the way along there to the same extent, or does it vary some?

A. The bed varies from point to point.

Q. Now, describe it as a geologist, Mr. Veatch, as you would make it in your geological report on that vein and its character, and what does it indicate to you as to the carrying of coal in the lands adjacent thereto?

A. The coal in that vein is a rather high grade bituminous coal. The bed, as shown by examinations along the outcrop, does not vary to such an extent that one would hesitate very much about—

Mr. Kelley: We object to this as the predication of an opinion as to what some one else would do, instead of a geological description of the coal bed as asked for.

Q. Go on, Mr. Veatch, and answer the question fully.

A. The bed dips westward, slightly north of west, as a general trend in this particular strip of country. The dip is about twenty degrees (eighteen or twenty, but at some places to the north it flattens slightly, and to the south it increases.

Q. And is that true of it along there as it runs north and south east of these lands which are in controversy in this case?

A. Yes. Through there it is very—there are a great many pits showing good coal.

Q. How does it vary, if at all, from the way it exists along about the Diamond Coal & Coke Company's mines No. 1 and No. 2, I think, that have been spoken of in township 21?

Mr. Kelley: We object to that on the ground that the
693 premises about which the witness is asked are entirely outside of any of the ground in controversy in this action, in fact, removed several miles from it.

A. The character of the vein exposed in that region is essentially the same as the vein going south.

Q. And how is it as to its characteristics as found in section 31 in township 19 north, where the Cumberland mine is?

A. It is the same character of vein. The vein is of the same character throughout its whole extent.

Q. And what is the fact as to the Cumberland mine being upon the same vein that the Diamondville mine is on?

A. I think it is.
Q. Is that true as to the one at Glencoe?
A. Yes, sir.
Q. And where do you find the evidences of exploitation as related to that vein?

Mr. Kelley: Objected to on the ground that the question refers to a date wholly later than the date upon which this ground was purchased from the Government.

A. There are numerous prospects along there, holes enough, prospects enough to determine the general character of the bed.
Q. Could you tell anything as to the age of the prospects; was there any variation in their ages that was discernable?
A. No, that could not be stated with absolute certainty. They were, most of them, of not very recent origin.
Q. Now, as a geologist, taking the indications and evidences as you received them from the examination of this vein at its outcroppings, what would you state to be the ex-
694 tent of that vein in running westward, if you know?

Mr. Kelley: Defendant objects to this on the ground that it is incompetent, immaterial and irrelevant, in that it asks for an opinion based solely upon examinations made at a date long subsequent to the time of the purchase from the Government.

A. The bed extends westward for a distance varying from—

Mr. Kelley: We wish to add to that objection, that it has no reference to the vein at points where the same is involved in any of the premises in controversy in this action.

A. —varying from four or five miles to seven or eight miles west.
Q. What do you say is the dip of this vein?
A. It averages something like twenty in that region.
Q. Do you know what it averages or what it is up against section 18 in township 20 north, range 116 west?
A. You mean the dip in the region of the Glencoe mine?
Q. Yes, in the region of the Glencoe mine.
A. The dip along the outcrop there is between fifteen and twenty degrees.
Q. And how far below the surface would that place the vein under section 18 at its east line; and then give its west line?

Mr. Kelley: Objected to on the ground that the necessary presumptions for a hypothetical question have not been made

by counsel, and [and] there is no evidence in the case
695 to show that the vein extends beneath section 18—that is, as far as it relates to the ground in controversy—except that the outcrop is on top of some of it.

A. At the northeast corner of section 18-20-116 the depth is about eighteen hundred feet.

Q. Well, take the southeast corner. Can you give it there?

A. At the southeast corner it is approximately fourteen hundred or fifteen hundred feet. I can give it exactly if you want it measured here.

Q. Now, then, take the west half of the west half of section 20. What would be the depth of the vein there, if you can tell.

Mr. Kelley: Defendant makes the same objection as to this question.

A. You see the depth there at the southeast corner of 18, is fourteen hundred feet. Now, in this section it would become less, because this will follow approximately the strike, and it will be at the surface there, (indicating), and would be fourteen hundred feet at a line drawn through that corner, parallel with the outcrop.

Q. Now, can you give it down at the southwest corner of that section, about what would be the depth of the vein?

A. It is nine hundred or a thousand feet there.

By Mr. Kelley:

Q. What dip are you using, may I ask? I want to verify your figures?

A. It is based upon the various dips that are found throughout that whole outcrop.

696 Q. Tell me the dip you are figuring from?

A. I am giving the figures from the map that I have here.

By Mr. Burke:

Q. That was a map made by yourself, as a result of this survey and this investigation? A. Yes.

By Mr. Kelley:

Q. Is the dip given on that map? I never knew you could compute an angle from a map before. I asked you for the dip in degrees. A. At every point?

Q. No. Where you figure this depth at the point at the southwest corner of section 20?

A. That is a calculation based upon the average dip from a number of observations there. I don't know what that particular calculation is based upon at this particular time.

By Mr. Burke:

Q. You know your map to be correct, do you? A. Yes.

Q. And it indicates to you the record that you made of that survey in relation to that matter? A. Yes.

Q. Now, can you give me the depth of the vein under the east line of 30, say about the center of the east line of 30.

A. It is slightly less than at the northeast corner.

Q. And can you give me what the depth would be under the center of that section? I want it at a few points along there. A. It is sixteen hundred feet there.

697 Q. Now, take it down at the northeast corner of section 6 in township 19, range 116; can you give me the depth of the vein there?

A. Here it is practically the same as in the east center of 30; the dip is slightly increasing going down there.

Q. Take the depth in the southeast corner of section 6; can you give me the depth there?

A. It is in the neighborhood of seven hundred feet there.

Q. I think we have some in section 18. Can you give me the depth at the west side of section 18?

A. At the northwest quarter—

Q. Township 20-116? A. —it is thirty-nine hundred feet.

Q. And the west side of 30; take the northwest corner; that is the extreme distance from the vein or outcropping?

A. It is approximately thirty-five hundred feet.

Q. Take the northwest corner of 6.

A. It is slightly over three thousand.

Q. And then in section 12; it would be as great as that, would it? A. Yes. The depth is increasing to the west there.

Q. Now, Mr. Veatch, as to these sections, 18 in township 20, 30 in township 19, 6 in township 19, and the two 80's marked in red in section 18, would the vein be found at any greater depth under those than it would be in these cash coal entries up in sections 23 and 26 and the west side of township 21?

Mr. Kelley: Objected to by defendant on the ground that the question is incompetent and immaterial for any pur-
698 pose in the case. It merely calls for a comparison between an assumed state of facts or hypothesis, which has not been shown to exist, in the sections in controversy and in other sections removed to a great distance from these sections.

A. The western part of section 18 and the portion of section 30 are at a greater depth than the west line of this, but the bulk of the land in 18, 20, 30 and 6, the coal is at the same depth. Of course the depths are increasing in that upper region from the outcrop westward.

Q. Any difference from what they increase in these sections which I refer to? A. No, not particularly.

Q. Is the dip of the vein any different?
A. The dip is slightly less there.
Q. But approximately is the same, that is, the depth to which you would have to go to coal at the same distance from the outcropping? A. Yes, very much so.
Q. Now, what is coal land, Mr. Veatch, in the sense in which you use it as a geologist, and in making your determinations?

Mr. Kelley: Defendant objects to that on the ground that it is immaterial. Coal land, as defined by the law, is a question of law. The witness is not qualified as a lawyer. It has been defined and determined by the Supreme Court of the United States repeatedly, and coal land, geologically speaking, is not involved in this controversy.

A. A practical designation would be that coal land is land that a practical coal man or coal expert would himself
699 buy or advise a client to buy as an investment for coal mining purposes.
Q. Now, you may state as to whether or not your examination of this region was such as to enable you to testify as to whether or not the lands in controversy in this case are coal lands within the definition which you have given.

Mr. Kelley: Objected to by defendant on the ground that it is immaterial, for the reason that the definition, as given by the witness, has no relevancy or bearing upon the question in controversy in this suit.

A. Yes.
Q. Well, what do you say as to whether section 18 in township 20 north, range 116 west, is coal land or not.

Mr. Kelley: To all of this defendant interposes the same objection.

A. Undoubtedly it is.
Q. What do you say as to section 30 in said township and range? A. It is.
Q. What do you say as to section 6?
A. It is coal land.
Q. And what do you say as to the west half of the west half of section 19, and the southeast quarter of the northwest quarter, and the northeast quarter of the southwest quarter of section 20?
A. It is coal land.
Q. What do you say as to section 12 in township 19 north, range 117 west? A. It is coal land.
700 Q. And what do you say as to the two 80's marked in red in section 18, township 19 north, range 116?

A. They are coal lands.

Q. Now, have you made a study or specialty of soil in your profession?

A. Yes, I have done some soil work. I took soil courses in Cornell University. Part of our duties in the Geological Survey was the prepartion of soil maps and the examination of the soils in various parts of the state, and as a result of that work I was tendered a position on the National Soil Survey.

Q. Did you make any observations or examinations of the soil lying along through this valley in which these lands are located that are in controversy?

A. In a general way.

Q. And what is true as to whether you have made irrigation a study in connection with your work as a geologist?

A. I am not an irrigation expert. I have done some work. The engineering work connected with making a topographic map would give one some idea of where water could be carried.

Q. I understood that you made a topographical survey of this section? A. Yes.

Q. And its supply or source of water, if any?

A. Yes, I made a map, showing the irrigable lands of that region, for the Government.

Q. Now, where is there any water in that region, if at all?

A. The principal stream is Ham's Fork.

Q. Where is that, as to the lands involved in this controversy?

701 A. It lies northeast, or northerly, in a general way.

Q. Is it in the same valley, or over a ridge, or how is that?

A. It is separated from the lands in question by quite a ridge.

Q. Well, what is the fact as to whether or not it is possible to irrigate these lands in controversy with any reasonable expense, the taking of the waters out of that stream. Could waters be procured, that is, not having been appropriated?

Mr. Kelley: That is objected to as incompetent and as immaterial for any purpose.

A. The head gate of a canal to water those sections would have to be placed some miles above Kemmerer to lift it over that ridge. The cost of making such a canal would be very large.

Q. In your judgment, is it a practicable thing, a possible thing? A. It could be done.

Q. Is it practicable as an irrigation scheme, as an economic proposition?

A. My understanding or the water proposition there was that all the water rights were gone.

Mr. Kelley: We object to that.

Q. Never mind about that. Will you testify whether it is, as an economic scheme, possible or practical?

A. I doubt it very much.

Q. Now, what do you say as to whether or not these lands in this case are agricultural lands?

702 A. They are only pastoral lands without irrigation.

Q. To what extent are they pastoral lands?

A. They are a low grade pastoral area.

Q. What do you say as to whether they are agricultural lands?

A. I should say that they are pastoral lands, and not agricultural lands in the sense of being cultivated.

Q. What would you say as to whether or not they are more valuable for agriculture or as coal lands?

A. Undoubtedly they are worth more for coal than they are for agriculture.

Q. Did you ascertain, and are you informed as to the value of lands up in that section, or were you at the time you made this examination?

A. In connection with our investigation we made a hasty study of land values in this whole region, from an agricultural standpoint, and from that basis I should say that the land was worth not more than seventy-five cents an acre as agricultural land.

Q. Ham's Fork is indicated on exhibit No. 280 by this double line, and by the words "Ham's Fork", is it not?

A. Yes.

Q. Did you ascertain as to the possibility of obtaining agricultural lands along the line of that stream, in the course of your investigation?

Mr. Kelley: Objected to by defendant for the reason that it is immaterial, and has nothing to do with this case or with the lands in controversy.

703 A. The lands to the east of Oakley were, in part, at that time vacant government lands, and in part unsold Union Pacific lands.

Q. What did the Union Pacific lands sell for there for agricultural purposes along that stream, if you know?

Mr. Kelley: Objected to by defendant on the ground that it is entirely immaterial.

A. I dont know their exact value for any specific section on that stream, but pastoral land, land without water right, the usual price in there in blocks was from fifty to seventy-five cents an acre.

Q. What did you learn with reference to the value of agricultural lands with water along that stream?

Mr. Kelley: Objected to as immaterial and incompetent; no proper foundation has been laid, unless they are offering the witness as a sort of encyclopedia to fill up the holes.

A. The usual value of agricultural lands with water rights, according to my investigation, was from ten to fifteen dollars an acre. The correctness of that rather low estimate is shown by the fact that the school land belonging to the state, in the Bare River bottoms, was a that time unsold because no one would pay ten dollars an acre for it.

Mr. Kelley: Defendant moves to strike out the answer of the witness and to suggest that possibly that counsel
704 can argue the case when it comes up.

Q. What is the elevation or altitude of this land along in the vicinity of the lands in controversy?

A. It is in the vicinity of seven thousand feet; between sixty-five hundred and seven thousand.

Q. Can you indicate on that map where there were prospect holes as you found them in your investigation?

Mr. Kelley: Defendant objects to that for the reason that it is incompetent and immaterial under the issues in the case, and has no reference to any condition existing at the time these lands were sold by the Government.

A. We have the prospects shown here on our map.

Q. Now, can you indicate where they are? A. Yes.

Mr. Kelley: Our objection goes to all this line of evidence.

Q. You may now indicate on the map, exhibit No. 280, if you can, where you found prospect holes.

A. How far north?

Q. Starting with the township line, the north line of section 20, and running south by the lands in conflict, and where you make a mark give the location for the reporter, so that he may enter it upon the record.

A. There was a prospect in lot 3, section 4, township 20 north, range 116 west. I am making a red cross. Shall I distinguish between prospect pits and tunnel openings or slopes?

705 Q. Yes. What kind of mark do you place there?

A. I will make a cross for a prospect pit, and a "V" with a straight line down from it, or a "Y", for a slope.

Q. Is it a sawbuck cross?

A. The first one is a prospect slope.

Q. But what kind of a cross, what kind of a figure?

A. It is a multiplication sign. There is a prospect pit and a prospect slope in the southern part of the southwest quarter of section 4.

Q. How near to the line of outcrop there?

A. They are right on the outcrop. This is the same township and range. There is a prospect pit near the south side of the southwest quarter of the northwest quarter of section 9, same township and range. There is a prospect pit in the southeast quarter of section 8. There is a prospect pit in the northwest corner of section 16. The opening of the Glencoe mine is near the center line of section 17, on the east side. There is a prospect pit in the northwest corner of the northeast quarter of the northeast quarter of section 20. There is a prospect pit near the southeast corner of the northwest quarter of the northeast quarter of section 20. There is a prospect pit in the southwest quarter of the southeast quarter of section 20. There is a prospect pit in the northwest quarter of the northeast quarter, and the southwest quarter of the southeast quarter, and a prospect pit and slope in the northwest quarter of the southeast quarter of section 29. There are a number of prospects near the quarter line of section 32; on the north half I have indicated five here, and two more prospect pits on the south side of the same section. There are two prospect pits in the northeast quarter of the northwest quarter of section 5.

706 There are two pits in the southwest quarter of section 5, and a prospect slope in the northwest quarter of section 8, and two prospect pits—a prospect pit near the center of the southwest quarter of section 8, two prospect pits in the northwest quarter of section 17, one in the southwest quarter of section 17, a prospect slope in the northwest quarter of section 20. The main entry of No. 2 Cumberland mine is near the southeast corner of the northeast quarter of section 19, and an opening that goes into No. 2 mine, a slope, is in the southeast quarter of the southeast quarter of section 19. There is a pit in the northeast quarter of 30, one in the southeast quarter of 30, a pit near the quarter corner on the north line of 31, and the main opening of Cumberland No. 2 is near the center of section 31.

Q. Now, have you any evidences as to when prospecting took place, how early it took place along the line of that outcrop?

A. Well, we have the evidence of the map of the Union Pacific Coal Company in there.

Q. Were these prospects and openings perfectly visible to the eye, so that they are readily seen? A. Yes.

Q. And have you indicated on the map the location of the borings along that line? A. I have those locations.

Q. Have you indicated those also on the map? A. No.

Q. Will you indicate the location of the borings, then, by plaing at each point a little circle?

Mr. Kelley: Objected to as incompetent, irrelevant and
707 immaterial for any purpose in the case. It does not show by whom nor when nor how nor where they were made.

A. There is a boring in the southwest quarter of the southwest quarter of section 4, township 20 north, range 116 west; there is one near the quarter corner on the north line of 32.

Q. Township 20 north?

A. Yes, township 20 north. There is one in section 5. All of these are the ones that are shown on—

Q. That would be in township 19?

A. 19-116. The ones that were shown on the blue print of the Diamondville record received from the Diamond Coal & Coke Company. Then in 19 I have three records from the Union Pacific Coal Company, all in the southeast quarter—in the west half of the southeast quarter of section 19, township 19 north, range 116 west. There are three holes in the east half of the northeast quarter of section 1, township 18-117. There is one of them that is slightly south of the center line, which would bring it down into the very northeast corner of the southeast quarter. Then, there is a well in the southeast corner of section 25, township 21 north, 116 west, up in there. Those locations, of course, would not be only approximate on there, as showing the general position.

Q. Now, what is the character of this coal that you find in this vein of which you have been testifying?

A. It is a rather high grade of bituminous coal.

Q. What is true as to whether there are indications of faults along the line of that vein?

A. There is no faulting that I know of in that immediate vicinity, of any consequence.

Q. As to whether there [—] any wants, and is that pos-
708 sible to determine except by absolute exploitation?

A. You mean along the outcrop?

Q. No, in the vein. Is there anything by which a geologist can determine as to whether the vein is full of wants or not?

A. You can determine it by the general character of the outcrop.

Q. What are the indications from that as to whether there are wants frequently in that vein or not?

A. That coal is, as a whole, of commercial thickness; the great bulk of those test pits show commercial coal; there are some of them that don't.

Q. Can you give the position of the principal [mies] along this vein?

Mr. Kelley: To that defendant makes the same general objection.

A. I have shown the openings there of Cumberland No. 1 and Cumberland No. 2, and Oakley; I have not shown those upon the map.

Q. You might indicate those further north, the openings of Diamondville No. 1 and No. 2, if you will.

Mr. Kelley: Defendant makes the same objection.

A. The opening to Oakley is in the northeast quarter of the southwest quarter of section 36. It is shown on this map of the Diamond Coal & Coke Company.

Q. Can you indicate the two Diamondville mines on that map, exhibit No. 280?

A. The opening of the main mine at Diamondville is
709 near the quarter corner on the north line of section 25, township 21 north, range 116 west, and the Frontier mines approximately on the west side of the northeast quarter of section 13, township 21, and the other opening near the center of section 12, same township and range. The location of No. 3 Cumberland I don't know; that was made after I was there.

Q. Did you ascertain the output of these several mines in connection with your investigation, so that you can testify to it?

A. Only from the reports of the superintendents and managers of the coal companies.

Q. Do you remember what it is of the Diamondville mines?

Mr. Kelley: Defendant objects to that, on the ground that it is merely hearsay to begin with; further, for the reason that there is no showing as to where the coal comes from; and it would be entirely incompetent for the purpose of attempting any sort of classification of the character of this ground at the time the Government sold it. I would like to know if the superintendent or representatives made these statements direct to the witness.

The Witness: Yes.

Mr. Kelley: Another mistake.

A. I have the mines at Frontier, Diamondville and the two Cumberlands, having an average of from fifteen hundred to two thousand tons a day. The Oakley mine I have no record of, or the Glencoe mine. The Glencoe mine was not in active
710 operation during most of the time that we were there.

Q. At the time that you made this investigation was Cumberland No. 3, in section 17, township 19, in operation?

A. No, it had not been built. I was in their mine in 1906, and the mine was there. It was built in the winter of 1905-06, I take it.

Q. Mr. Veatch, who is J. P. Leslie?

A. Leslie was at one time on the Pennsylvania survey. He was one of the noted coal geologists of the country.

[—] What is the fact as to whether or not he is recognized as an authority in your profession? A. He is.

Q. As a geologist? A. He is.

Q. I will ask you, as a geologist, whether this is a true and correct statement or not:

"Coal is never found issuing in veins from the interior of the planet, like gold and silver; nor filling irregular cross crevices in limestone, like lead; nor spread abroad in lakes of hardened lava, like basalt and greenstones; nor embedded in clay, crystalizing upward from the walls and bottoms of deep, wide fissures, as bunches of grapes, or in bundles of pipes, like the hematite ores; nor lying exposed upon the surface in blocks, like native copper, or meteoric iron; but always as a thin sheet or stratum, extending through the hills as far as the hills extend, and inclosed between similar sheets of other kinds of rocks."?

Mr. Kelley: Objected to by defendant on the ground that it is incompetent, irrelevant and immaterial under the
711 issues in the case; further, for the reason that the authority quoted is not an authority and is not recognized as an authority at this date. For the further reason that the statements were not made with reference to any coal bed of similar character to the coal bed in question, and for the further reason that the coal beds of the West are of entirely different character from the one in question, and that none of them had been opened up or explored at the time the book was published. It is the statement of an author, merely hearsay, not made under oath or under any of the circumstances that would qualify it as evidence in this case.

A. Yes, that is a correct statement.

Q. I will ask you as to whether or not this be a correct statement:

"Nothing is more surprising than the vast expanse of even the thinnest of these sheets of coal. The original deposit of carbonaceous matter seems to have been in every instance almost coextensive with the lake or sea in which it was laid down."?

Mr. Kelley: Defendant makes the same objection to this question.

A. It is correct.

Q. This statement: "The practical character of a coal bed is soon determined by a few good openings upon its outcrop."? What do you say to that?

Mr. Kelley: Defendant makes the same objection.

A. I think that is good.

712 Q. "Under ordinary circumstances and for all practical purposes, the quality, size and mining condition of a coal bed can be explored as well in two or three days by a gangway ten or fifteen feet long, as by working through it for a month or a year." Is that true?

A. That is the practical method of exploration.

Mr. Kelley: We move to strike out the answer on the ground that it is not responsive to the question.

Q. I will ask you whether this is a correct statement, as a geologist: "The only proper method is to open the same bed at numerous places along its outcrop, and from a comparison of these crop openings the actual average character of the bed within can be confidently predicted, and its contents calculated."? A. That is true in its entirety.

Q. And this statement: "A coal bed may indeed belie itself at one point or at two where openings were made, but not at a dozen. Veins of lead, of copper, of iron, alternately increase and diminish in size, rapidly and unexpectedly. The miner never knows until he strikes the vein what it will be worth, nor how soon the pocket which he has entered may close up between bare walls. Not so with coal. It varies little and seldom disappoints. What it is at one point it is likely to be much the same at another." Is that a correct statement from a geological standpoint?

Mr. Kelley: To that defendant makes the same objection.

A. Yes, sir.

713 Q. These several quotations, purported to be taken from the Manual of Coal and its Topography, by J. P. Leslie, I read from a decision of the Secretary of the Interior, as found in Vol. 34, Decisions of the Department of the Interior, at pages 201 and 202, and what do you say as to them as a whole, as being a correct statement of the geology of coal?

Mr. Kelley: Defendant makes the same objection.

A. They are correct.

Mr. Kelley: Defendant now moves to strike it all out, upon the ground that counsel is not quoting the authority referred

to when he is questioning the witness, and there is no evidence that the statements were ever made by the alleged authority.

Cross-Examination

By Mr. Kelley:

Q. When was this book published? A. I don't know.

Q. Did you ever see it? A. Yes.

Q. Have you ever read it? A. Yes, parts of it.

Q. Did you read these statements before?

A. I have read them before.

Q. This book, the last edition of it was published in 1858, was it not? A. I don't know.

714 [—] The book is not now in print, is it?

A. I dont know.

Q. Do you know of any place where this book can be purchased or acquired?

A. I dont know anything about it.

Q. It is not a regular book, then, to which geologists generally have ready access, is it?

A. It is recognized by geologists as an authority.

Q. Will you please be so kind as to answer my question.

A. What was your question?

Q. (Question read.)

A. I think they do it in all college libraries.

Q. I was not talking about college libraries, where they make a specialty of collecting antiques, but of the ordinary geologist in the field.

A. The ordinary geologist in the field does not carry a library with him.

Q. He carries some books with him, usually, does he not?

A. I dont know.

Q. You have not got this book in your library, have you?

A. No, I have no library.

Q. You carry this in your head, so to speak?

A. No. I refer to it in the library of the Geological Survey.

Q. In Washington? A. Yes.

Q. Have you ever seen this book in the private library of any geologist? A. Yes.

Q. As a text book or manual that was worthy of support and reliance at the present time? A. Yes.

715 Q. Whose? A. John F. Newsome.

Q. Who is he?

A. He is the Professor of Economic Geology at Stanford University at present. He was formerly Professor of Geology in the Indiana University, and he has done work on coal, and regards Leslie as an authority on coal. It is, further, in the

library of Dr. Hayes, Geologist in charge of the Geological Survey, also an authority on coal, and is regarded by him as a standard authority on coal.

Q. Any others? A. Yes.

Q. Have you ever seen it anywhere else?

A. I have seen it in the library of the Indiana University.

Q. I mean in the private library of any geologist?

A. No.

Q. Except these two men? A. No.

Q. Now, assuming that this book was published in 1858, did Mr. Leslie have the advantage of a study of the Western coal fields at that time?

A. I should say not, from the date.

Q. They were practically unknown, or, at least, their extent and area and character were undetermined at that time?

A. Practically unknown at that time.

Q. And when Mr. Leslie was writing this book, it had particular reference to the anthracite regions in the East, did it not? A. No.

716 Q. It didn't? A. No.

Q. How do you know it didn't?

A. Because it involves a discussion of bituminous coal; as I remember, there is a large amount of bituminous coal in Pennsylvania.

Q. I mean the Eastern coal fields, not necessarily the anthracite.

A. Yes, it relates to the coal fields of the Eastern part of the United States.

Q. It is a fact, is it not, that the coal fields in the Eastern part of the United States, some of them are of very great extent? A. Yes.

Q. And of great regularity? A. Yes.

[—] As instanced by Mr. Leslie in his book, where he refers, right immediately following this discussion, to the Pittsburg coal field. Isn't that an example?

A. Yes, that is very regular.

Q. Which conditions, with reference to the size, extent and regularity of the coal deposits, do not apply in general to the coal deposits in the West?

A. I would not say that that was entirely true.

Q. Would you say that it was untrue?

A. I would say that the coal deposits of the East and West are similar in a great many respects.

Q. Similar as to the extent and regularity of the coal?

A. There is no coal bed that I know of in the world that will compare with the Pittsburg seam in regularity,

717 but the majority of the seams he was referring to have somewhat the regularity of the Pittsburg seam.

Q. Do you mean to go on record as a geologist, as saying that the coal beds of the West, such as we have in Wyoming and Montana and Utah, compare in size and regularity with the coal beds of the Eastern part of the United States, in Pennsylvania and West Virginia? A. Yes.

Q. How do they compare?

A. I thought you asked me as to the extent and regularity of the seam?

Q. I asked you if they compare. Of course, there is a comparison between them, but are they of anything like the same extent or regularity?

A. Yes, they compare favorably.

Q. What is the largest coal field that you know of in the East? A. That is in area?

Q. Yes.

A. I think in square milzs probably the Indiana and Illinois-Kentucky field will come very close to the West Virginia Ohio-Pennsylvania field.

Q. What is the extent of these coal fields?

A. I dont know.

Q. Have you any idea?

A. No, I couldn't estimate it.

Q. None at all?

A. Only that I know where they extend in those states in a general way.

Q. You couldn't give us any average or approximate estimate as to the number of square miles of surface?

718 A. No. I don't attempt to carry those figures in my head; they are easily found by reference.

Q. What is the largest coal field of which you have any knowledge in the West?

A. Why, my personal knowledge is limited to Wyoming.

Q. What is your knowledge, gained from your reading and study, about the matter?

A. Why, there is a great area of coal bearing rocks.

Q. I didn't ask you about coal bearing rocks; I asked you about coal, coal field, coal deposits.

A. Including any coal, all kinds of coal?

Q. Any kind of coal, yes.

[Q.] All right. There is an area which is essentially continuous as a big coal field, which includes parts of Montana and North and South Dakota; that field continues down into Wyoming and continues up into Canada over a great belt there.

Q. Will you eliminate the word "essential" from your answer and make it the same? A. Yes.

Q. Then, do I understand that there is one coal field of definite known area that extends from Montana northerly into Canada and southerly into Wyoming?

A. Yes, that would be called a coal field.

Q. And you have no doubt that there is workable, commercial coal throughout this area?

A. You are asking for my general information?

Q. Well, what is your general information; that there is workable coal throughout this entire area?

A. I could not assert that there is workable coal in
719 every place in that area.

Q. Why couldn't you? A. Because I don't know.

Q. Well, have you only testified here today to things which you actually know? A. That has been my impression.

Q. Well, now, we might as well get an understanding of this thing. What do you consider that you know?

A. Well, from a philosophic standpoint, I know nothing, if you want to get to the refinements of philosophy.

Q. No, but I mean—

A. I am not sure that my name is what I have given it, in point of argument, but I think it is.

Q. But do you carry it to the other extreme of assuming that you know things that you can not possibly determine by the use of your perception, and things which have not been exposed to the knowledge of any one; do you assume that?

A. I have expressed an opinion on the facts as I see them and interpret them.

Q. Then, you do draw a distinction between things which you know, and things which are merely a matter of opinion, based upon your scientific study and experience?

A. The line is very shadowy.

Q. Then, in other words, you would venture an opinion upon things which are not capable of any demonstration with the same confidence that you would predicate a statement on positive knowledge of things that you actually saw or positively knew? A. No, you misstate that.

Q. I want to get an understanding of your position here, because frequently, I think, in the examination you said "I know" or "there is". Am I to understand that in cases where
720 the matter referred to things which you had not observed, that those were matters of opinion or positive statements of definite knowledge?

A. I think there is a refinement of terms there.

Q. No, I don't think so. For instance, if you are testifying that coal exists under land which has not been to any extent developed and which lies at a considerable distance away from the outcrop of a coal seam—now, when you say that you know

there is coal underneath that land, in the absence of this development, why do you say that?

A. You mean no development except on the outcrop?

Q. Yes.

A. You have plenty of development on the outcrop.

Q. You may have the outcrop developed or not developed; I don't care anything about it. A. All right.

Q. Do you think you could be positive in stating that you knew there was coal underneath that land?

A. I stated the thing this way, that I would purchase that land for the purpose of mining coal.

Q. That, of course, might be apersonal idiosyncrasy. Will you answer my question as to what you mean?

A. About that being coal land?

Q. No. Do you know that there is coal under that land?

A. Why, I said that I knew nothing, that I know nothing positively; that I believed there is coal under that land; that the bulk of evidence there shows that there is coal under that land.

Q. Then, it is the expression of an opinion?

A. Yes. All right.

721 Q. Of course that opinion is one which you arrive at from what you can see along the outcrop in this particular case?

A. Yes. That would be the practical way of determining.

Q. And of course you would then believe that if this outcrop was strong, sufficiently strong to present all of the features of a commercial coal body at the point first uncovered, the coal bed would extend indefinitely down beneath the earth's surface?

A. No; my statement was that the probabilities were that it would, and that any practical coal man would buy it for that purpose.

Q. Now, the probabilities are that it would extend indefinitely? A. Yes. Indefinitely is really—

Q. It must stop some place? A. Yes, that is right.

Q. Would you have any idea as to where it might stop?

A. It would depend upon the local, geological structure in a great many cases.

Q. Now, in addition to its being probably that there is coal beneath the surface, do you assume to express an opinion that that coal would descend into the earth, beneath the earth's surface with unvarying regularity as to the structure of the coal itself, with the nature of a vein and the other characteristics? A. There would be no assumption of that sort.

Q. So that, when you make the statement that probably there is coal beneath land that is removed from the outcrop, you do not assume to state the character or extent of the coal, do you?

A. We do have the knowledge that we gain from the outcrop. The outcrop will show the variations of the rock. You
722 asked if I would state that it would be absolutely uniform; I say that it would not, because there is no coal that is absolutely uniform.

Q. The outcrop would merely indicate the variations in the strike of the bed or vein, would it not? A. No.

Q. Do you mean to tell us that there might not be a pinching of the coal in depth, although it was not indicated on the outcrop?

A. I mean to say that the outcrop is a fair criterion on which to base a judgment of what would happen. Coal beds are known to be irregular.

A. And you simply use your practical judgment on it.

Q. Certainly.

Q. Do you know what a fold is? A. I think I do.

Q. Do you occasionally encounter on the dip a fold in a coal seam? A. Yes, I have seen a fold in a coal seam.

Q. Have you seen the folds from the hang-down, for instance, the hanging or top of the seam, the overlying structure, the roof? A. I don't understand.

Q. What irregularities do you encounter on the dip in coal veins; name some of them, and due to what causes?

A. Irregularities in dip?

Q. Yes, variations in dip that would be absolutely not manifested on strike at all.

A. Not on strike, but if you have any exposures on the surface you can determine the structure of that seam.

723 Q. Answer the question. Assuming that you had simply the apex or edge of the coal bed exposed—

A. Yes.

Q. Name some of the geological or structural defects that might exist in that coal bed on its dip, and not be manifested on the surface.

A. There may be things which have happened which would not be manifested on the outcrop of the coal bed at one point, but if you have the outcrops of the whole region, you can determine with great precision what has happened.

Q. Then, you arrive at your opinion from a study of the geological structure of this entire region? A. Right.

Q. And you could not take any small segment of this coal vein, exposed on the outcrop, and arrive at the same opinions that you have expressed with reference to the possibilities of that vein in dip, without taking into consideration your general observation of the field?

A. The result would not be as accurate.

Q. No. So that, going back to the other proposition from which we started, you insist, do you, that from a study of the

outcrop of the vein you can determine approximately and accurately what should be expected from that vein in depth?

A. From the outcrop of the vein and the adjoining outcrops and the general geologic structures.

Q. So much so that, with reasonable certainty, you would not hesitate to advise the expenditure of money, the acquiring of property for the purpose of the exploitation of the coal bed?

A. No, I would not hesitate, and no other coal geologist would, either, if the facts were sufficient.

724 Q. From the facts I have assumed; from any facts that you can determine from the outcrop itself?

A. Yes. The facts might be unsatisfactory, and in that case I would not advise; but if you suppose that the facts along the outcrop are satisfactory, there would be no hesitation in advising on the outcrop and the adjoining geology.

Q. Do you know what a strike fault is?

A. Yes, I think so.

Q. Is there any way in which you can determine from an examination of the outcrop of a coal vein, whether you will encounter a strike fault in depth?

A. That would depend upon the extent of the exposure and the general geologic structure of the region. That condition does not exist here.

Q. It does not? A. No.

Q. You have a coal vein exposed along the easterly hills of this valley, have you not? A. Yes.

Q. You have a valley that lies in between that easterly boundary, the hills, and the western boundary? A. Yes.

Q. That valley is covered, to a certain extent, by a wash and debris? A. Yes.

Q. Now, then, you mean to tell us that you are absolutely positive that there can not exist in this region a strike fault cutting off this vein in depth, and unexposed in any way in your observation on the surface?

A. Yes, I think that may be determined.

725 Q. And you do so determine it? A. Yes.

Q. And you assert that there is not?

A. I think there is not.

Q. You think not. In what way would you determine the absence of a strike fault when you have no access to the structural rocks that lie beneath the surface?

A. You have your rock crops on the surface, you have your very complicated structure in certain respects on the west side, you have certain irregularities in strike—

Q. I just want you to tell me what they are.

A. I am telling you. Certain irregularities in strike—

Q. What are these irregularities in strike?

A. You can see them by the wiggles in that coal crop in a rough way.

Q. That is remarkably regular, is it not?

A. Yes. It is not remarkably regular for the structure of the country. The structure here is very simple.

Q. But you don't mean to say that these bends of the coal cropping there indicates irregularities in the geological condition, further than differences, perhaps, in elevations, caused by erosion?

A. The major part of them—of course, elevation there cuts a certain figure, but the major part of them are due to variations in the strike. The dip is such that your outcrop becomes practically a straight line.

Q. How do you determine from the irregularity of the strike in that vein, that there are no faults running parallel with it, beneath the debris of the valley to the west of it?

A. I find absolutely no evidences of such a thing.

726 Q. But the evidence is not exposed, is it?

A. The evidence is not exposed,—what do you mean?

Q. It is covered by the wash of ages.

A. Oh, there are exposures in that valley.

Q. There are? A. Yes.

Q. I simply want you to swear, if you will, that there are no strike faults in this valley. Will you do that?

A. Yes. I know of none of any magnitude.

Q. And you are willing to stake your professional reputation on that statement, are you? A. Yes.

Q. Now, of course, you qualify that by saying of any magnitude. What do you mean by strike faults of any magnitude?

A. Oh, a matter of a hundred feet; below a hundred feet. Anything over a hundred feet I should say could not exist there.

Q. You mean a hundred feet in displacement? A. Yes.

Q. Well, a strike fault of very much less than a hundred feet would utterly disturb a coal bed, as far as practical mining is concerned, would it not?

A. It would depend entirely on the general relations. You say a strike fault. There are a great many different shapes that a fault may have.

Q. Well, I will take a fault parallel to the strike of this vein. A. Yes.

Q. By which, after descending on the dip for a few hundred feet, the coal was either elevated or depressed, so that it was relatively one hundred feet from the position of

727 the slope upon which you came down? A. Yes.

Q. You would not undertake to mine that from that slope any further, would you?

A. It depends entirely on what is the down-throw side or out-throw side.

Q. In which event would you mine it from that slope?

A. If the strike fault was a thrust fault in which the western side pushes up, there is a possibility of continuing that slope. It depends on a great many factors.

Q. You could not say, could you, as a matter of fact, when you open a slope on the outcrop, if you go down on the dip and encounter a fault, a strike fault—you could not say that you could continue mining operations any further on that slope?

A. The conditions could exist where it would not be profitable to continue that slope.

Q. And if there was any such displacement as one hundred feet, the probabilities would be very much greater that no further mining operations would be carried on, than otherwise, would they not?

A. Not necessarily so.

Q. Are you answering these questions, Mr. Veatch, with an appreciation of the fact that you are supposed to be swearing to the truth?

A. I am answering as much as I can understand your statement of them.

Q. Is not my statement perfectly clear?

A. Not always.

Q. Is there anything about the last statement that you do not understand?

728 A. No, I think not. As far as I understand it, I am answering it.

Q. Now, Mr. Veatch, you confine your statement that there are no strike faults westerly of this outcrop to strike faults of magnitude, do you not?

A. Yes, those that would affect seriously the value of the coal.

Q. As a mining proposition? A. Yes.

Q. Now, then, you believe, do you, that you could in all cases determine the presence or absence of a want in depth, by the indications of the outcrop as prospected here?

A. No, you could not. You could determine the probability of one.

Q. The probability of it? A. Yes.

Q. But you could not say positively that a want did not exist? A. No.

Q. How many wants do you know of beneath the surface of this vein from the beginning, northerly, at Kemmerer, and extending southerly to Cumberland?

A. There is a want in the north side of No. 1 mine.

Q. Can you indicate approximately where that would be on the map?

A. No. I think Mr. Griffith has given that.

Q. You mean No. 1 Cumberland?

A. No. 1 Cumberland, and on the south side of No. 2 Cumberland. But those are not on the outcrop.

Q. Those are not on the outcrop? A. No.

729 Q. Aren't they manifested at all on the outcrop?

A. There is nothing on that. There is a want in the biggest bed up about midway between Cumberland and Glencoe.

Q. No, no, not that. I am talking about this fault now, that I was speaking about.

A. I haven't spoken of a fault.

Q. A want in No. 1 Cumberland, that Mr. Griffith talked about this morning? A. Yes.

Q. You say that that want is not indicated on the line of the outcrop at all? A. No.

Q. So, then, would it have been possible to have determined its existence from a study of the outcrop line?

A. You mean determine the exact location of such a want? You could determine whether the bulk of that land contained coal or not.

Q. By prospecting?

A. By the regularity of the outcrop. A good miner always determines it that way.

Q. Well, the Union Pacific Coal Company went in there, and they sank shaft No. 1 on section 31, didn't they?

A. Right.

Q. And they went up and sank a shaft on section 19?

A. Right.

Q. Approximately two miles between? A. Yes.

Q. And, according to Mr. Griffith, sixty per cent. of the land between these two shafts is barren in depth, isn't

730 that so? A. No, he didn't state that.

Q. He stated that over six thousand feet out of ten thousand was barren, didn't he? A. No, I think not.

Q. He stated that he struck the fault or the want, running northerly from No. 1. A. That is right, he did.

Q. How far?

A. It was in the northern side of section 31. You might say it is a quarter of a mile from the top, if you went in some parts there.

Q. How far did he say it was from his slope?

A. I think it was twenty-five hundred feet, as I remember it. I am not sure of the figure.

Q. How far southerly from No. 2 did he say he encountered this same want?

A. It was somewhat the same distance; it varied according to the entry.

Q. Was it five or six hundred feet; didn't he state that?

A. Up in the upper entries, the first entry, probably; but in the other entries, the western entries. It was going southward, wasn't it?

Q. Not until he got below the twelfth entry. A. Yes.

Q. Now, taking it between. If you assume that that was twenty-five hundred feet northerly from No. 1 entry, and that you struck this same want five hundred feet south from No. 2 entry, that would give him, in the intervening space between no. 1 and No. 2 shaft, as far as developed along those
731 entries, three thousand feet of coal? A. Yes.

Q. Now, if these shafts are ten thousand feet apart, there is approximately seven thousand feet in which no coal is developed?

A. If the two wants are the same. He stated he thought they were, but he didn't know; that is the difference.

Q. Oh, that is the point. What do you think about it.

A. I don't know that they are the same.

Q. And you don't know that they are not?

A. I don't know that they are not.

Q. Now, if you assume that they are the same, and that is the only evidence in this record, the opinion that they are the same,—there is sixty per cent., or over sixty per cent. of the land lying between the faces of these two entries that is barren, isn't that true?

A. Between the faces of those two entries—which two entries?

Q. I mean the entries run out from the slopes where they strike this want, one going south and the other going north.

A. Why, if they are the same, there is one hundred per cent. missing. You said between the two entries.

Q. Sixty per cent. of the ground between the two slopes is barren.

A. That would depend entirely upon the calculation of where that want runs.

Q. I have assumed all the facts. Now, Mr. Veatch, you understand that we are engaged in trying to do business here, don't you? A. Why, yes.

732 Q. I dont want you to testify to anything except the facts, but you understand perfectly what I mean, and I think this playing upon words is hardly proper.

A. I think you are the one who is doing the playing, if I may express an opinion.

Q. If I were, I would prefer a more agreeable playmate. I will make a picture of this, Mr. Veatch, and see if we can understand each other. Assume that No. 1 mine is located

here, on section 31, and assume that No. 2 mine is about here, on section—

A. Just point it out on the map; it would be just as well.

Q. I dont care to take any directions from you, Mr. Veatch.

A. I beg your pardon sincerely.

Q. —that No. 2 mine is here on section 19. As I understand it, these slopes from these shafts descend somewhat westerly of north? A. Yes.

Q. As I understand it, they run out here, in opening up their rooms from No. 1, they run northerly from the slope?

A. Yes.

Q. And they run southerly from the slope in No. 2?

A. Yes.

Q. Now, if I understand Mr. Griffith's testimony, they ran northerly twenty-five hundred feet approximately and they encountered a want? A. Yes.

Q. And they ran southerly five hundred feet from the slope in No. 2, and encountered a want? A. Yes.

733 Q. Which, in his opinion, was the same want which extended through here.

A. But he didn't know.

Q. No, and neither do you. A. No, that is right.

Q. Assuming, however, that they are the same one—

A. Yes.

Q. I understood Mr. Griffith to testify that these two shafts were about two miles apart? A. Yes.

Q. That would be about ten thousand, four hundred feet, would it not? A. I think so.

Q. Now, then, assuming that the shafts are about ten thousand feet apart, and assuming that there is about three thousand feet of coal between the slopes, and assuming that the want is the same, it would leave about seven thousand feet between the workings of the two mines that was barren, wouldn't it? A. Yes, it would.

Q. That would be about seventy per cent. of the ground between the two slopes, wouldn't it?

A. That would be seventy per cent. along a certain line that you have drawn there.

Q. It takes a long time to get there.

A. Why didn't you take the end of the entries, and say one hundred per cent.? You could have proven just as much.

Q. Well, it would prove that one hundred per cent. of certain areas of this ground was absolutely barren, if this want is the same? A. Right.

734 Q. It would prove that you were absolutely mistaken when you ventured opinions without any exploration or development, that there was coal underlying land which has not been developed at all, wouldn't it?

A. No, I think not.

Q. It would prove that you might be?

A. It would prove that the Union Pacific Company spent money on that land—spent two hundred and fifty thousand dollars, on the same sort of evidence that I am talking about, and they are practical men. It proves also that the Diamond Coal & Coke Company did the same thing, a practical coal proposition. No business is certain in this world.

Q. There was also some talk about the intervening section, No. 30, as to the possible value of that land for coal, by Mr. Griffiths? A. Yes.

Q. And my understanding of Mr. Griffith's evidence was that as far as he was concerned he wouldn't give five cents for it for coal purposes. Did you hear him make that statement?

A. Why, he also stated, or you stated—I beg your pardon—you stated that the Union Pacific Coal Company offered to buy that land.

Q. At one time, for a hundred thousand dollars.

A. Yes, at the time this land was taken up.

Q. No, I did not mention the date. A. All right.

Q. That is an assumption on your part. A. All right.

Q. So we have a concrete case here, then of where the Union Pacific Company, we will assume, was willing to give one hundred thousand dollars for a section of land
735 which subsequent development proved, to the satisfaction of the man in charge of its workings, was not worth five cents, in his opinion. A. Exactly.

Q. Now, we can come to a better understanding from this thing; we can understand each other, I think. Is it fair to say, Mr. Veatch, that that uncertainty is, or may be, rather, encountered in coal operations at times?

A. I think it is fair to assume that coal beds have irregularities. That is well known; that must be taken into consideration in my statements; that is what was taken into consideration in my statements.

Q. So the Union Pacific Company, if they had expended one hundred thousand dollars on this section, would not have realized what they expected from it, would they?

A. No, that is right.

Q. And they are practical coal men?

A. They are practical coal men.

Q. So that it would seem impossible, at least, for them at the time to have been able to make any correct estimate as to the value of that section?

A. They estimated it. They were convinced in that estimate—

Q. Will you answer my question, please. That would seem so? A. Yes.

Q. And, of course, do you attribute that to the lack of knowledge on the part of the Union Pacific men?

A. No.

736 Q. Or to the conditions that existed?

A. I think they prospected it thoroughly.

Q. Now, then, Mr. Veatch, do you know of any other wants which occur in the vicinity of the locality that we are talking of, along this particular vein?

A. There is a region of thin coal in the main bed, but there is a bed above it, which is commercial there.

Q. Now, I am asking you about this vein.

A. I am talking about it.

Q. We will take up other veins. This is the same vein, is it?

A. I stated that the Cumberland-Kemmerer seam was a composite vein.

Q. I think you are probably talking about it somewhat differently from what we have heretofore been. Do you mean to say that there are other veins here besides the one that outcrops along the surface?

A. They all outcrop. There are a group of beds there.

Q. Does this one outcrop cover all the beds or seams?

A. It represents the approximate location of that outcrop.

Q. Now, then, this one outcrop that is indicated here on the map—

A. That is representing all the coals that occur right in that vicinity.

Q. Oh, I see. That is not supposed to indicate any one particular vein of coal, but the entire bed?

A. It indicates the principal outcrop there.

Q. Now, then, you say that, going north, the coal gets thin?

A. Yes.

737 Q. Whereabouts is that region?

A. That is shown on the Union Pacific map.

Q. I am not asking about the Union Pacific map; I am asking what you know about it.

A. I will have to refer to it.

Q. Don't you know without referring to the Union Pacific map?

A. I don't know without referring to my maps. I can not remember these sections.

Q. Can't you fix the locality by reference to this map which has been introduced in evidence?

A. No, not without reference to my original series, but you must remember that it has been some time since I was there, that I was hurriedly called to this case from my Australian

trip, and that it is merely the data that has been sent to me that I must base my statements upon.

Q. Well, going northerly from the Cumberland No. 2, do you know of any wants in this vein between that and Kemmerer?

A. Yes. Our investigations showed—our report there, that I have been referring to, shows such a thing.

Q. Well, I am not asking now particularly about the condition of the outcrop. Do you know of any wants that have been encountered in the mine workings?

A. I know that in the Kemmerer bed an area of low coal was struck on the west side. At the time I was there, their expectation was to drive through it. I don't know what was done in the matter.

Q. Was it not practically an entire thinning out of the coal, Mr. Veatch, as they worked south from the Kemmerer mine, this mine that you have spoken of?

738 A. Not that we knew about it.

Q. How much coal was there left where you saw it?

A. I wasn't in the south end of the Kemmerer mine.

Q. Didn't you see this place?

A. You mean at the west side?

Q. No, at the southerly side.

A. No, I didn't see the southerly side.

Q. Were you ever down in the Diamondville No. 1?

A. No.

Q. Do you know whether or not, in driving north from the Diamondville No. 1 along the coal, a want, similar to the one described in the north workings of Cumberland No. 1, was encountered? A. I have the report of one of my assistants.

Q. Answer my question. You can answer it yes or no, and then make all the explanations that you want.

A. Do I know?

Q. Yes. A. No, I don't know.

Q. And do you know that between Diamondville No. 1 mine and the Kemmerer property next north of it—that would be the most southerly mine of the Kemmerer Coal Company—that there is a region which is barren, similar to the region described by Mr. Griffith down in the Cumberland, this morning. Do you know that? A. I was not led to the conclusion—

Q. Do you know it? A. —by the drill hole in there.

Q. Do you know that that is the fact?

A. I have no reason to doubt that drill hole.

739 Q. Then, do I understand you to say that you do not believe there is such a want between Diamondville No. 1 and the Kemmerer mine?

A. An absolute want of the same character here?

Q. Yes.

A. I have no evidence of such a thing, and have no knowledge.

Q. Therefore you do not believe it exists?

A. It is not impossible.

Q. Well, this is your belief about it?

A. Why, the evidence I have shown an area of low coal in there.

Q. What do you mean by low coal?

A. That is, that the coal thins between the two mines.

Q. What is this evidence of which you speak?

A. I thought there was a diamond drill record here from the Diamond Coal & Coke Company, in there.

Q. You are simply predicating your opinion upon that boring that was introduced in evidence?

A. That boring, yes, and I also have another basis, of the evidence in a report of one of my assistants, who examined that mine, which stated that the coal on the north side of that mine was seven feet thick; that they struck an area of squeezed coal there which let the water of Ham's Fork come in, and that they were turning away from it.

Q. Your assistant reported that to you? A. Yes.

Q. What is his name? A. Carl D. Smith.

Q. Now, you don't believe that there is any want between No. 1 Diamondville and the Kemmerer coal mine, do you?

740 A. I say it is not impossible.

Q. Now, I am tired of your saying that things are possible or impossible; what do you think about it? I ask you what you think about it.

A. I told you I did not think it was impossible.

Q. Do you think it is possible?

A. I think it is possible.

Q. Do you think it is probable?

A. I do not think it is probable.

Q. Is there anything along the line of the outcrop that indicates to you that such a thing actually exists in that vicinity?

A. Why, my understanding was that there was an area of thinner coal in there along the outcrop. The outcrop varies irregularly.

Q. What is your knowledge about the subject?

A. I don't know.

Q. Did you examine the outcrop yourself?

A. Examine the outcrop there?

Q. Yes. A. No, I didn't.

Q. Where did you examine this outcrop yourself?

A. I examined the outcrop personally from the vicinity of Diamondville southward and from the vicinity of Kemmerer northward; practically between Diamondville and Kemmerer. I had the reports of the two companies as to the position of the

outcrop. We were not making an investigation there for lawsuits; we were simply making a report to the Government.

Q. I understand that. Now, is there any place where
741 you examined the outcrop south from Diamondville, where it indicated to you that a want would exist in depth? A. Yes.

Q. Please tell us where that is, Mr. Veatch.

A. There is an area in section 32, township 20 north, range 116 west, in which what we took to be the main Kemmerer bed was wanting. There is a bed above that, the upper bed, which has a thickness there of four or five feet, so that there is coal on that section.

Q. Oh, yes.

A. But it showed the irregularity of the seam.

Q. Now, then, is there any place north of that where your investigations showed you that there would probably be a want, south of Diamondville?

A. There is a prospect slope just outside of section 4; there is also the record of a Diamond drill there—

Q. I am talking about your investigations of the outcrop.

A. Yes—in which the coal does not appear.

Q. Did you make this diamond drill hole?

A. No; I am talking about the prospect slope there.

Q. Did you go down the diamond drill hole?

A. I said that I am talking about the prospect slope. A slope is different from a hole.

Q. But you mentioned the hole, didn't you?

A. Yes, I did, and I changed the language when you asked me if I went down the hole.

Q. Where is the slope?

A. Right in the same region, there in section 4.

Q. I see where it is. Well, what did you find there, a probable want?

742 A. No. That coal has a bone in it. It seems that the coal is there, but it seems that the coal is in a state of diversion.

Q. What do you mean by bone?

A. There are impurities in the coal, shale and other rock.

Q. Is there any place between section 4 and section 32 where you find a want?

A. There are some very thick seams of coal through there.

Q. I didn't ask you about those; I asked you if you found a want anywhere. A. I have no record of it.

Q. And you don't know that, in No. 4 mine, working southerly from the slope, a want similar in character to what

has been testified to by Mr. Griffith this morning has been encountered; that is in the Glencoe mine.

A. No, I don't know of such a thing.

Q. And you would say that the probabilities would be very much against such a thing occurring, wouldn't you?

A. From the evidence we have there, there is nothing to show it.

Q. In mining northerly from No. 4 mine, do you know whether a want or squeeze has been encountered?

A. No, I know nothing of it.

Q. And in mining southerly from No. 1 mine, do you know whether a similar condition has been encountered?

A. No, I don't know of that.

Q. Now, then, what is your distinction between a want and a squeeze; I think you used the term squeeze.

A. The squeeze there was an area in which the coal was badly splintered, so that the water could run down it. It
743 does not mean that the coal is absent, but that the coal is crushed.

Q. Do you know of any other fillings or gradations where the coal diminishes in width, besides the one you testified to?

A. Along this area?

Q. Yes. A. No.

Q. You have given us all, have you? A. Yes.

Q. Mr. Veatch, what is that map of your own, to which you refer occasionally?

A. That is one of the first proofs or second proofs of a report that has been in the press for some two years, on this region, in which all of this data is given, and it was in the preparation for this that I made this survey and collected this data from the various coal companies, and all of the data is included in that report, and they understood it was to be published in that report.

Q. I asked you about the map. You have told me all about the map that you wanted to, have you? A. I have, yes.

Mr. Kelley: We ask that this map be marked as an exhibit in the case. Map marked defendant's exhibit No. 2.

The Witness: There is a colored copy of that same map, and some other maps there, if you want those.

Q. Now, in order that we may have a clear conception of the terms, Mr. Veatch, you make a distinction, I sup-
744 pose, between coal and workable, commercial coal, do you not? A. Yes.

Q. In regard to the quality of the coal itself? A. Yes.

Q. And also you made a distinction between the mere presence of coal and coal in workable quantities? A. Yes.

Q. Now, then, when you said, in answer to Mr. Burke's question, that you found a very high grade, or a high grade of bituminous coal at all points along the vein, do I understand that you were referring to the character of the coal itself or to the quantity, or to both?

A. I was referring to the quality of the coal in that particular statement.

Q. There are some places, of course, where the coal, although of this quality, would hardly be present in quantities sufficient to justify working it as a commercial proposition?

A. Yes.

Q. And your answers, to be fair about the matter, are to be taken subject to this qualification that you have just made?

A. Why, those are all considered in the statements.

Q. I know, but where you said there was at all places coal, you just told me that you were referring to the coal itself, and not to the quantity.

A. No, I meant as to the general character of the coal, the general quality of the coal in that seam. I did not say that every place along there, there was commercial coal.

Q. Yes, and I say that your answer in that respect is to be taken subject to this qualification? A. Yes.

745 Q. You have indicated on the map, I believe, the position of this most northerly drill hole, have you not?

A. I think so—no, the most northerly is not on there; it is in section 24.

Q. Will you please put that on?

A. (Witness marks position of drill hole on map.)

Q. Now, will you please indicate to the stenographers the place of that hole as you put it on the map, the citus.

A. It is near the middle of the north side of the northwest quarter of section 24, township 21 north, range 116 west.

Q. Now, this map upon which these markings have been made is the same map that you testified to the other day, in order to connect it up? A. Yes.

Q. On that map, Mr. Veatch, you have indicated the coal crop as a continuous red line from up near its northerly boundary down to the southerly? A. Yes.

Q. That indicates that at all places along there you can follow the cropping, as I take it?

A. That is the geologic position of that coal bed as we determined it.

Q. The geologic position? A. Yes.

Q. Is that the position where you actually saw it, or where you figure it should be?

A. You can't see it at all places.

Q. Why can't you? A. It is covered by wash.

Q. And how as to the frequency with which the coal,
746 itself, so that you can see it without prospecting or digging down and exposing it?

A. There is no place that I know of where a complete section could be gotten of that coal. A practical miner would face up the seam and find out about it, just as has been done.

Q. But you don't want the impression to be given from the map itself that you can go along and follow that coal vein sticking out of the ground along the line indicated by that red line, without removing the wash?

A. You can locate the approximate position of it by the sandstones that lie below it, which are always shown. That is one of the finger posts in that country.

Q. This is the geological position of the coal, as determined by you? A. Yes, approximately.

Q. You used a term the other day which I want you to explain; I think you referred to it as the geological horizon. What did you mean by that?

A. That is the stratigraphical position of that coal bed.

Q. What do you mean by the stratigraphic position?

A. Its position with reference to the surrounding strata.

Q. It is customary in making a map, however, where you can not actually see the coal, to break the line or dot it in, is it not, instead of putting it on definitely? A. No.

Q. You think not? A. No.

Q. That is never done, is it?

A. All coal maps that I have seen had continuous lines.

Q. And you do not know or recognize the custom of
747 dotting the line in broken segments, to indicate that it has not been actually seen and developed?

A. Not in a case of that sort.

Q. You don't do that in geological coal maps, as I understand?

A. The map here—I have a coal map here, and I think there will be a dotted line on it here, if you want to see it. (Referring to defendant's exhibit No. 2.) You find that this is the same bed, and coming down here it is dotted. It is deeply covered there by the tertiary stuff, and there is a dotted line there, some of the lower coal measures; but this can be traced with such precision that it is safe to represent it as a continuous line. It is a matter of degree, I think.

Q. Have you got a copy of your bulletin? A. No.

Q. In your bulletin you did break the line, did you not, of the outcrop on this map which is to be found between pages 336 and 337 of the Department Bulletin for 1905?

A. Well, that was not shown as a broken line in the sense that I mean it; that is merely a dotted line, a convention there, to show—

Q. The what?

A. The state of our knowledge of that matter. That map was drawn in the drafting room from a rough sketch. I would not vouch for the details there. This is the final map.

Q. You would not vouch for the color of this map which appears at the place indicated, would you?

A. In a general way, yes, but the details, no.

Q. This is the bulletin which you issued, is it not?

A. Yes, and it stated that that is a brief, preliminary
748 report.

Q. This is the only one that has ever been published, isn't it? A. Yes.

Q. Can you explain why the line of outcrop is shown dotted in your bulletin map, and is absolutely unbroken on this map which you have introduced as plaintiff's exhibit No. 280?

A. That is merely a question of drafting in the survey office.

Q. That does not indicate that at all points where this line was broken in the map which accompanied the bulletin, the one I have referred to here, that you are not certain as to the position of the outcrop or the character of the outcrop?

A. No. We had just as much data when we published that, as when we prepared this.

Q. That dotted line, however, would indicate, wouldn't it, that you did not absolutely know—

A. That that was an approximate location in there?

Q. That that was an approximate location in there.

A. Yes, I think so; that would be the interpretation I would put on it in looking at the map.

Q. And if you didn't know, and looked at this map, you would believe that the location of the coal and the character of the coal was more or less uncertain along those places, wouldn't you? A. Yes.

Q. This line in your bulletin map between the pages indicated is dotted opposite most of the sections in controversy here, is it not?

A. I don't know as to that; you can tell by looking at the map.

749 Q. You haven't any knowledge about that? A. No.

Q. You dont know where it is dotted?

A. No, I dont.

Q. If it is dotted, you say now that it should not have been dotted?

A. I say that this (defendant's exhibit No. 2) is my final map.

Q. I am talking about the map in the book.

A. Where that map differs from this map, I should say that the map should be corrected.

Q. Did you make any examination of this map when it was inserted in your bulletin?

A. Only a casual one. I was leaving for the field, and it was sent to me for approval, and I scratched my name on it and went out in the field. I didn't have time to go over it.

Q. Is that the way you send out your professional report for the benefit of the public?

A. In a preliminary report of that sort, yes.

Q. Then, do I understand you do not expect the scientific world or the commercial world to place credence in this bulletin that has been published under your authority by the Geological Survey?

A. I made a frank statement of that in the beginning of the report, stating that it is a preliminary report, I believe, or something of that sort, and that a final report will be prepared.

Q. But you did not say that, insofar as this was a report, it was not to be treated as an accurate and correct report, did you?

A. I stated that it was a preliminary report. I be-
750 lieve most geologists know what a preliminary report is.

Q. Tell us just what is meant by a preliminary report.

A. It is one prepared rather hastily, before you have fully collected your data, and is a sort of an advance sheet, always subject to correction.

Q. You have used the same information that is contained in this preliminary report on your testimony here today, did you not?

A. That report is based on the same information that is in my complete report.

Q. Why didn't you finish the report? A. What report.

Q. This report.

A. If you want the internal history—

Q. No, I just want to know if you didn't have the time.

A. I objected to preparing a preliminary report; I regarded it as entirely uncalled for and unnecessary, but I was told to prepare a preliminary report, so that the people could have it at once. I think it is rather a good thing that it has been published, because the other has been delayed so long, and I do not believe that there will be any very grave mistakes made from that report.

Q. You dont think there will be? A. No.

Q. As a general substantive proposition, the report correctly states the facts, does it not? A. I think so.

Q. I want to call your attention to this statement, found on page 337 of your report: "At some points between
751 these mines"—referring to the mines between Kemmerer and Diamondville—"the bed is very thin, or even absent." A. Yes.

Q. That is true, isn't it?

A. I have stated that before in this testimony.

Q. Where did you state that the bed was absent?

A. In section 32 I said there was a want in the lower seam. The upper seam is present there.

Q. Have you indicated to us all of the places along the outcrop where the coal is either very thin or entirely absent?

A. I can give you a complete statement of all my records, if you want it.

Q. I didn't ask you that question. I asked you if you had told us all of the places where the coal is very thin or absent.

A. All I could gather in glancing over those reports. I can read the records if you want it.

Q. I dont want any particular record. I will ask you if you will look at it tonight, and if you discover any others besides those you have already mentioned, you can give them to us in the morning. Will you do that?

A. Yes, I will.

Whereupon further hearing was adjourned until Friday, March 27th, 1908, at 9-30 A. M.

752 Friday, March 27th, 1908, 9-30 A. M.

Cross-Examination of A. C. Veatch, resumed:

By Mr. Kelley:

Q. Mr. Veatch, when was it that you began your examination of this coal field or section of country in Wyoming?

A. The field records commence on June 30th, 1905.

Q. And I believe you stated yesterday that your work continued for one hundred days?

A. Yes; we completed it on October 10th.

Q. Now, prior to that time had there been any detailed study or classification by the Government, through its Geological survey, of this section of country?

A. Not that I know of. There have been several reconnaissance pieces of work by the Government.

Q. I mean that your survey was the first detailed investigation which was made by the Government?

A. I think so.

Q. Just what section of the country, approximately, did you cover; can you give us some idea?

A. It is shown on that exhibit 2, that area there.

Q. Well, did you cover anything in addition to what is shown on exhibit 2? A. No.

Q. Your work was confined, practically, then, to the territory that is shown upon this map? A. Yes.

Q. Now, that extended northerly to township 22, the northerly boundary of 22, I guess.

753 A. Yes; there is a little bit up in 23, over in this northeast corner.

Q. And southerly how far?

A. About to the south line on part of the area there; it is bounded by the south line of Wyoming.

Q. Southerly to the state line between Utah and Wyoming?

A. Yes; the state line is approximately the boundary on the south side and the west side.

Q. On the west side?

A. It is the state boundary; it gets over a little bit; it is very nearly the line.

Q. And easterly? A. To range 115.

Q. Range 115 west. You were in charge, I assume, of this party, Mr. Veatch? A. Yes.

Q. And of course, a large amount of the detailed work was done under your supervision by your assistants?

A. No, I did most of the detail work personally.

Q. What did your assistants do?

A. They did the rest of the detail work.

Q. Well, the detail work that you did not do, your assistants did; would that be putting it fairly?

A. Yes, I think that is a fair statement.

Q. How many assistants did you have?

A. I had two, and at one time, three.

Q. They were competent men, I assume?

A. Yes. Two of them had had experience; one of them had had very little; it was his first summer in the field, and he did what he could.

754 Q. And you made the detailed geological examination yourself? A. Yes, a major part of it.

Q. And in addition to that, you acted as instrument man for the party, and ran transit a large portion of the time?

A. No. We had no transit.

Q. Did you not tell me the other day that you, yourself, had run transit?

A. No. You said run an instrument. I ran an instrument along there at the time; I had a compass.

Q. Are you sure about that?

A. That is my recollection. If I stated anything else it was entirely erroneous.

Q. What sort of instrument did you use in running out the different township lines? A. A pocket compass.

Q. And were all of your surveys, compass surveys?
A. Yes.
Q. And you did most of that work yourself?
A. Yes, I did.
Q. What did you have these assistants for; what was your purpose in having two and sometimes three assistants, if you were doing all the work yourself?
A. I didn't say I did all of the work; I said I did most of the detail work. The assistants were running lines and locating corners, and I could go over the lines quickly afterwards and put in the detailed geology, and save my time.
Q. Now, then, last evening I called your attention to a statement in the bulletin which was published, and you stated that that statement was substantially correct, I believe?
755 A. What was the statement?
Q. The statement is taken from page 337. You had referred to the Kemmerer mines, which were opened in 1897, the Kemmerer and Cumberland mines and the Diamond Company's mines, and you said: "All these mines develop the main Kemmerer bed, which varies in thickness in the workings from five to twenty feet." A. Yes.
Q. That statement is correct, is it? A. Yes, I think so.
Q. Now, I want to understand, Mr. Veatch, what you mean, so that the record will be clear upon it, by a coal bed, as the term is used in your evidence and in the bulletin.
A. Well, we have used that term, Kemmerer bed, to include a group of horizons there, unless it is specifically specified. There are three that are worked in the northern part, but there is only one that I know of that is worked in the southern part. There is a group of beds very close together there, and the line on the map represents very generally all of the beds.
Q. That is specifically, but when you speak of a coal bed, what do you mean in the main, one seam or more seams, as the case may be?
A. I would use coal bed to supply to the bed of coal or the thickness of the stratum that is worked in one mine. There might be bands or partings in it, as there were in the Cumberland mine, but it is all worked as one opening.
Q. But suppose you had a coal seam or deposit, and above it you had some sort of a deposit of sedimentary rock or a stratum, which would vary, we will say, from ten to
756 fifteen or twenty feet, possibly up to one hundred feet, and then on top of that you had another deposit of coal. Now, would you consider both coal seams or deposits as part of the same bed?
A. No, not strictly. They might be of the same group of coals there together. There is such a case here; the upper

Kemmerer seam worked in the Diamondville mine has such a position as you have described.

Q. When you speak of the bed here, however, you do not mean to include these seams that are removed by a separate layer or stratum, do you?

A. I mean that they are working along that general coal horizon there.

Q. Now, do you make any distinction between a coal seam, as you have used the term, and a coal bed?

A. No; I was using them synonomously.

Q. So that the coal bed referred to as the Kemmerer coal bed here is the entire deposit of coal, although it may be separated by—

A. It is this group of coal. When I refer to the thickness there, I mean the thickness of the workable seam, not all its thickness of sandstone.

Q. Continuing you say: "At some points between these mines along the outcrop, the bed is very thin, or even absent."

A. Yes.

Q. Now, you stated yesterday, when I called your attention to this statement, that you had in your former evidence, or during the course of your examination, given an instance of this in section 32, I believe? A. Yes.

757 Q. Don't you remember that, when you testified with reference to section 32, you said that one seam had departed, but that there was four feet of workable coal there?

A. Yes. Now, I should explain there that there is a mixture of coal that is not clear as we trace this bed north, the bed that is worked in No. 1 and No. 2 Cumberland, and going northward there in 32 on what seems to be the projection of that particular seam which is worked there, that one bed, that group, the prospect pits show no coal, but that there is a seam not very far above that, which contains five feet of coal. Now, whether that is the same seam, which is displaced slightly by faulting, or whether it is a higher seam, I did not determine. My impression is that it is a higher seam, and that is what I meant. This seam which is worked there shows a failing at this point, but take the thing as a whole, that is, the whole group of coal, and there is no place along it that I know of that the whole mass of it is missing.

Q. There is no place where all the coal in all the seams has disappeared? A. That is what I mean, yes.

Q. But there are places where all the coal in one particular seam has failed?

A. That is my interpretation of what I saw there.

Q. Now, then, you referred in your same bulletin to a seam of coal at Diamondville which you say is about five feet thick, and fifty feet above the main vein? A. Yes.

Q. Now, this vein or seam is not the main coal seam?
A. No.
Q. As we understand it?
758 A. It is not the particular one which is worked there.
Q. That is unworkable from the Diamond workings to any considerable extent, is it not?
A. I thought they were working it.
Q. Did you have an impression that they had worked this vein extensively?
A. I had the impression that they were working in there.
Q. You never were underground there, were you?
A. I never saw the bed.
Q. In the bulletin you say: "Fifty feet above the main vein is worked to a small extent."
A. Yes; it is not worked as extensively as the bed below, I understood because the miners did not care to work in that; it was a thinner seam and they could not make as much wages.
Q. Didn't you understand that this upper seam was frozen to both the roof and the floor, and it was practically impossible to mine it and they had to give it up?
A. That is not the report I had.
Q. Now, you are not testifying as to these facts underneath there from your own knowledge, are you?
A. No. I did not see it.
Q. Now, you showed yesterday a coal boring, I think up in section 4, when I was asking you about the want which existed —no, it was not in section 4.
A. Yes, it is in section 4 indicated by this little circle, I believe. Is that the one you mean?
Q. No, it must be this one in section 35.
A. No; I didn't testify regarding that section 35.
Q. No; here it is. Section 24 is the one.
A. Yes.
759 Q. I asked you if there was a want between Diamondville No. 1 and the Kemmerer mines, and I understood you to say that that was not your understanding or impression?
A. Yes.
Q. And one of the reasons why you believed there was coal up there was that, in a drill hole, the report had been made that a considerable quantity, I have forgotten the thickness, had been found.
A. Not a considerable quantity; coal had been found in that drill hole.
Q. How much, do you remember?
A. I think in the neighborhood of two feet, something like that.

Q. Do you know whether that two feet is in this upper seam, or in the seam that constituted the main bed, where the workings are run? A. No, I don't.

Q. So that you don't know whether the main vein or seam upon which Diamondville No. 1 ran, wanted between Kemmerer and Diamondville No. 1 or not?

A. No, only the reports I have from the mines there.

Q. Now, Mr. Veatch, you introduced here yesterday some sections of diamond drill holes. The map was marked exhibit 310. This exhibit No. 310, Mr. Veatch, is the map you referred to yesterday as having been furnished to you by Mr. Snedden, and showing what was encountered in some drill holes? A. Yes.

Q. Now, drill hole No. 1, you stated, was in the northwest corner of section 24 in township 21, I believe?

A. Yes. It is on the map there.

760 Q. Its position is indicated on this small plan of the townships at the bottom of the map? A. Yes.

Q. Now, will you give us a description of that drill hole as it occurs here, so far as the coal which is found in it is concerned.

A. One foot of coal between ninety-nine and one hundred feet beneath the surface; three inches of coal at one hundred and fourteen feet; one foot of coal between one hundred and eighty-two and one hundred and eighty-three feet; four inches of coal at two hundred and nineteen feet; six inches of coal at two hundred and thirty-six feet; three feet, six inches of coal between two hundred and sixty-two and two hundred and sixty-five and a half feet; one foot of coal between two hundred and sixty-eight and two hundred and sixty-nine feet.

Q. Now, then, the rock intervening between the different seams of coal that you have described is of different structure and character, is it not? A. Yes.

Q. Would you say, as a commercial proposition, if you were obliged to sink a shaft vertically in the vicinity of this hole, we will say, and open a coal mine, that any coal which is exposed in that hole would make a profitable undertaking?

A. It is barely possible, depending on the depth that you would have to sink, that this one might be mined, but it is quite close to the limit. I would not consider it in the present state of the matter.

Q. You would not advise, upon that showing and in the absence of any further prospecting or determination of the showing—it would not justify the opinion that commercially valuable coal existed beneath the surface, would it?

761 A. Only that it would warrant further investigation.

Q. It would be a good prospect?

A. It would be a good prospect. I know of beds that thick that are worked.

Q. Oh, yes, but you don't mean to tell us, do you, that you can work commercialy at a profit in a coal bed three feet, six inches wide, in Wyoming?

A. I think it might be done. It is very close to the limit, though.

Q. Outside of the plant and equipment, what are the principal items of expense incident to the mining of coal?

A. The cost of mining the coal and the cost of driving a slope and entries.

Q. Do you know what that is? A. No.

Q. Have you any idea? A. No.

Q. Have you any idea what it costs the Diamond Coal & Coke Company to mine a ton of coal at Diamondville?

A. No.

Q. Have you any idea that you could open up a mine in that vicinity, and paying the same rate of wages and cost of other materials, how much you could mine coal for? A. No.

Q. You don't know that? A. No.

Q. It is only fair to say, is it not, that your investigations have been along more purely scientific lines?

A. Yes. This investigation, I testified, has been purely a scientific investigation.

762 Q. And that you are not as familiar with practical mining operations as you are with the scientific side?

A. That is right.

Q. Have you ever engaged in coal mining? A. No.

Q. In the actual business? A. No.

Q. Or have you ever had charge of any coal properties or been connected with any?

A. No, only as a consulting geologist.

Q. And in that case, of course, I suppose, or in those cases where you have been so consulted, your opinion was sought merely as to the structure, or other features incident to your profession?

A. Yes, the structure, the depth of the coal, the character of the coal, the depth of the coal at different points.

Q. So, then, when you testified yesterday that certain lands were coal land, you did that more from the geologist's standpoint, that there was coal lying beneath the lands, than from an economic standpoint of going in and working these lands profitably for coal?

A. No. The point there was that a practical coal man would purchase that land for that purpose.

Q. How do you know that, if you haven't any idea as to the cost of mining coal?

A. I know what coal men have done in this section.

Q. You believe that, because others have done so, a practical man would do so?

A. I know that practical coal men have bought that land through that whole section, in the same position.

763 Q. Now, the Diamond drill hole No. 2, shown on this same exhibit, is located, I believe, in th enortheast corner of the northwest quarter of section 32, is it not?

A. Yes, I think so.

Q. Now, will you please read from the section of that hole a description of that coal and its position as shown by it; do you understand what I mean? A. No, I do not.

Q. Well, take your hole No. 2, and give us the coal.

A. Oh, the same as I did before?

Q. Yes.

A. A six foot bed between eighty-seven and ninety-three feet; six inches at one hundred and thirty-four feet; one foot between one hundred and seventy and one hundred and seventy-one.

Q. And the hole is driven to a depth of two hundred and thirty feet without encountering any other coal? A. Yes.

Q. The hole No. 1 was driven to a depth of three hundred fifty-six feet without encountering any other coal than that mentioned? A. Yes.

Q. Now, in this hole No. 2 we have three different seams of coal, the upper one being six feet, the second one, six inches and the third one, a foot. That is all, isn't it? A. Yes.

Q. The only bed or seam of coal encountered by that drill hole, which could possibly be mined commercially, is the upper one? A. Right.

764 Q. The six foot seam? A. Right.

Q. Have you correlated that seam with the seams in the coal bed, so that you can testify as to what particular seam that is?

A. You will notice that this data here is marked for a plate in this report that is being published, and that there are red marks here. That is the approximate correlation of those coal beds as far as we determined it.

Q. Who made those marks? A. I did.

Q. Then, in your judgment, is the upper or six foot bed the seam that you have been designating as the main seam, or is it that seam which you mentioned in your bulletin as fifty feet above the main seam?

A. Well, this correlation makes it, I believe, the main seam. It is hazy in my mind now as to the exact meaning of that correlation of that exact seam, but that is my recollection of it.

Q. What became of the other seam in this No. 2 hole?

A. I should say that the other seam is absent.

Q. Well, topographically it should not be absent, should it?

A. Well, there is no reason. It is not present here that I know of. It is not present in the Cumberland No. 2 or No. 1 that I know of.

Q. It is present in section 32, with others?

A. I said there was an upper bed there that I thought was above this, but it might be a slight fault in there displacing it, but my impression at the time was that it was the pro-

765 jection of that line.

Q. You don't know whether that seam encountered in section 32 is this upper bed or not? A. No.

Q. Didn't you testify this morning that it was?

A. As I recollect it, I stated, or meant to state that in tracing this main bed northward—

Q. Please answer the question, then you can make your explanation afterwards. I don't wish to be captious, but that is the general rule as to explanations, that the witness should answer directly first, and then make any explanations he wishes. Did you this morning tell us that this four foot seam on section 32 was the same upper seam that you mentioned in your bulletin? A. No; I did not mean to state that positively.

Q. Now, you may make any explanation you wish.

A. Well, I think the explanation is made before there; I stated that fully.

Q. Do you say that your judgment is that, correlating these veins, the six foot seam shown in drill hole No. 2 between eighty-seven and ninety-three feet in depth, is the main seam, the one that you have designated as the main seam, and the one on which the main workings have been made, or is it the seam that you have mentioned in your bulletin as being about fifty feet above?

A. My impression, from the data that we have here, is that it is the main seam.

Q. In any event, I believe that you stated that it is the only workable seam? A. That is right.

766 Q. Now, drill hole No. 3 is located, according to your description given yesterday, I think in the northwest corner of the northeast quarter of the southwest quarter of section 5, township 19 north, range 116?

A. Yes, and it is shown on the map.

Q. Will you please give us the same data with reference to where the coal is in that hole?

A. There is a five foot bed of coal between ninety-eight and one hundred and three feet; a bed four feet, ten inches betwen one hundred and sixty-four and one hundred and sixty-eight feet, ten inches, and it reaches a depth of two hundred and thirty-six feet without encountering any other coal.

Q. Now, according to your correlation, Mr. Veatch, this upper seam disclosed in this hole, the five foot seam, is the one

which is designated as the main bed, and upon which the main workings have been made? A. Yes.

Q. No. 4 hole is located about the center of the southwest quarter of section 4, is it not?

A. Now, are you reading those numbers as I gave them yesterday, or as they are shown on this map?

Q. I have used my description taken from your answers, but I see that I have scratched it out for some reason.

A. I gave them in that order, as going from north to south, but that is not the number given on this plat.

Q. Well, we have taken that one.

A. That is No. 1 all right.

Q. No. 2 I have given you as being in section 32.

A. No. 2 is No. 3 of my testimony yesterday. That is No. 2 drill hole.

767 Q. In my question to you I said it was in the northeast quarter of the northwest quarter; is that right?

A. Yes, but that was No. 3 in my testimony yesterday, I think. It is not a matter of great importance.

Q. No. 4, where is that located?

A. No. 4 in my testimony is No. 3 of this diagram. No. 4 of that plat is up in section 4.

Q. Yes, that is it. It is about the center of the southwest quarter. A. Yes.

Q. Now, will you please give us the same data from that section of that drill hole.

A. The first bed of coal is between two hundred and forty-four and two hundred and forty-five feet; there is one inch of coal at three hundred and five feet; two feet of coal between three hundred and thirty-four and three hundred and thirty-six; six inches of coal at five hundred and fifty-three. The hole reached a depth of three hundred and eighty feet without encountering any other coal.

Q. You didn't give the width of the first bed; that is a foot, isn't it? A. That is a foot bed, yes.

Q. There is not any coal disclosed in that hole which could be worked commercially or profitably, is there? A. No.

Q. Now, have you correlated the veins or seams in this hole No. 4?

A. I have a mark here [with] I interpret to mean that I believed that the main seam there was absent through erosion.

768 You see there is thirty feet of mud referred to here, and I have it marked there. This, then, would be below; these seams would be entirely below the Kemmerer group that we have been talking about, these thin seams.

Q. As I understand it, the erosion has carried away the main coal seam in the vicinity of this hole?

A. Yes, that is my opinion.

Q. You did not make any mention of that in describing the outcrop on the map, did you, on exhibit No. 280?

A. My impression is that I started to describe the hole, and you told me that, as I didn't go down the hole, I must describe the prospect pit. I described a slope in regard to that.

Q. Yes, that was when you were describing the developments; but when I asked you repeatedly, Mr. Veatch, as to whether this red line on exhibit No. 280 correctly indicated a continuous outcrop, you repeatedly answered that it did, did you not?

A. It represents that coal horizon.

Q. Whether the coal horizon is there, or whether in the ages which have passed it has been carried away by the waters?

A. No, no.

Q. Now, just tell us what you mean by showing a continuous outcropping of coal through section 4, when, as a matter of fact, it is your information and belief that the coal outcrop has been washed away and thirty feet of mud forms the surface stratum?

A. There are three prospect pits there that show the coal.

Q. Well, if it is gone—

A. It is a question of the relation of that diamond drill boring to the mine prospect. You see that, as platted on that map, there is a platting west of the outcrop. It should probably from that data be platted on the outcrop or east
769 of it; that would be the way that I would interpret that.

Q. You think, do you, that Tom Snedden or the Diamond Coal & Coke Company, in boring diamond drill holes to ascertain the presence or absence of coal, should go east of the outcrop, when it was dipping to the west?

A. They may have been searching for a lower vein.

Q. Now, isn't that a very remote possibility, to be fair about it?

A. There is a lower bed worked up at Kemmerer.

Q. Answer my question. Do you believe that your explanation is reasonable? A. I do.

Q. And you give that with the same seriousness that you do your other evidence? A. Yes.

Q. All right. Now, as a matter of fact, correlating the veins shown on this map, I will ask you if it is not a fact that you are mistaken about the upper seam in No. 2 hole being the main vein? A. That may be.

Q. Well, according to the relations, the difference between the upper and lower seeam in drill hole No. 1 is the difference between ninety-nine and one hundred and eighty-two, or about eighty-three feet, is it not?

A. If we conclude that that bed there is the main bed—

Q. Well, between these two coal seams?

A. Yes, but if I am interpreting these red marks correctly, this is the main seam.

Q. That is right; I am mistaken about the upper seam of the two, but take the seam shown at one hundred
770 and eighty-three, and the one shown at two hundred and sixty-two, and we have a difference of about eighty feet?

A. Yes.

Q. Now, correlating the two veins in the section of hole No. 2, you have the difference between eighty-seven and one hundred and seventy, between the six foot seam and the one foot seam, a distance approximately the same? A. Yes.

Q. Doesn't it look reasonable to you that the seam which is shown in drill hole No. 2 at eighty-seven feet is the same seam that is shown in drill hole No. 1 at one hundred and eighty-two feet?

A. I dont know; it would depend upon the location, the relative position of those holes with reference to the outcrop. Now, this map was made and this correlation was made when I had all those facts in mind and was considering those points. That is the only reason for saying that those marks are my marks. I dont remember at present the details of the correlation.

Q. Well, to simplify and dispose of it, you would not undertake at this time, and do not wish to be understood as correlating the different beds or seams that are shown in these sections of the drill holes, one with the other, so as to identify or determine which particular seam is disclosed in each hole?

A. No, except that they represent the same group of coal.

Q. So that you dont know, and you can not say, from anything disclosed by these drill holes, whether an operator, sinking on the main vein, as we have termed it, the one which the main workings are——

771 A. Yes, the main vein worked in the different mines, whether it is in the same bed or not—

Q. You dont know whether that same vein encountered in these holes or not, except that in some one of them the coal would be encounted? A. Yes.

Q. But in which of them the seam would be encountered you can not at this time say? A. No.

Q. Now, Mr. Veatch, you testified yesterday to the depth at which coal would be found beneath certain sections concerning which Mr. Burke asked you? A. Yes.

Q. And in giving a response to those questions you took the dip as shown at the outcrop, did you not?

A. No: that was based upon all our observations in that region. The dip at the outcrop might not be the dip through the whole entent of the bed, and we would determine the variations in that dip by the dip of the strata on the surface outcrop, west of the coal outcrop.

Q. Then, you took an average; it was an average dip that you used?

A. No. It is not a uniform straight line. The line will become a curve from these various variations in the dip, but it is relatively very much the same; it is almost a straight line going west there.

Q. In giving us the dip, you took it from the contours shown upon defendant's exhibit No. 2?

A. Yes, they were approximate figures. They can be obtained exactly from those contours by measurement.

772 Q. How were these contours arrived at, Mr. Veatch?

A. It was by drawing numerous cross-sections up and down in that valley, and from that data determining the line. If it would be uniform, if it would be a perfectly straight line, or if it varied it would vary according to those variations. From those factors we determine points at intervals as we determine the crossing of a contour line on that particular section, and if, therefore, on those sections we were enabled to draw a line which represents the average angle of that material, it is much more trustworthy, in my opinion, than a single dip calculation, because it collects all the observations in the region.

Q. But these contour lines, of course, shown on the map, are not actually run as contours; they are projected from your data as collected? A. Purely projected, yes.

Q. So that you assume, to begin with, that your contour line is correct, in answering the question. You made that assumption? A. Yes.

Q. Then you assumed, further, did you not, the actual existence of the coal beneath the land? A. Yes.

Q. And upon the hypothesis that, if the coal was beneath the land and if the contour was correct, you have answered the interrogatory that the coal would be found at the depth which you indicated in answer to the various questions?

A. No, I would not say it just that way. It is my belief that the coal is there.

Q. I say that you assumed that? A. No.

773 Q. Well, Mr. Veatch, let us not get back into any metaphysical discussion if we can avoid it. But you must necessarily assume that your belief is correct, and you do that, don't you, to be fair about it? A. Yes.

Q. So it is an assumption, which you believe to be well founded, of course. You believe the assumption is well founded, I am not questioning that.

A. It appeals to me as a fact.

Q. But you do actually make the assumption in giving your computation and answering the questions; you assume these two facts, first, that the coal is under there, and secondly, that your contour line correctly represents the elevation of the coal at the point indicated. To be fair about it, that is a fair statement, is it not?

A. That is the position of the coal horizon as I have determined it from the data that I have.

Q. Exactly; based upon the assumptions that you have given us now. A. No, I don't believe that they are assumptions.

Q. Well, if you can't see the coal, if the coal has not been developed, and if there is nothing to actually disclose its existence, the uttermost conviction that you can have about the coal is a belief or an opinion based upon the facts which are disclosed and which you believe tend to support your opinion, isn't it? A. I believe they support it.

Q. You believe they support it, yes. A. Yes.

774 Q. But it is a belief only?

A. Well, I think it is correct.

Q. Well, I don't doubt that you think it is correct, but you can not assert that it is more than your opinion from your investigations? A. Yes, that is right.

Q. Now, in the same way, I want you to give me the depth —in running these contour lines did you assume a level surface?

A. No. The contours, you see, are absolutely independent of the surface elevation; they are showing the surface of the coal horizon.

Q. Now, will you give me the depth at which coal, if it exists, would be encountered at the center line of the east side of section 12, township 19, range 117.

A. I have it as very nearly three thousand feet; say three thousand feet.

Q. And that would beneath the surface?

A. Yes, I mean from the surface. The contours, you know, refer to sea level; they do not refer to the depth of the coal. You get the depth of the coal by comparing the two elevations, the surface elevation and the elevation of the coal. I mean depth from the surface.

Q. Depth from the surface, three thousand feet?

A. Yes.

Q. At the center line of section 12 where it intersects the western boundary of the section?

A. It is five thousand feet.

Q. In depth? A. Yes.

Q. I am not sure whether Mr. Burke asked you—I think he asked you about all the other sections.

775 Mr. Burke: I think so. I asked about the northeast and the northwest and the southeast corners of all the others.

Q. Now, referring, generally, to the surface, there appears to be, according to the evidence thus far introduced, another vein or coal bed or deposit of coal, the Adaville vein?

A. Yes.

Q. That lies to the westerly of the vein we have been discussing? A. Yes.

Q. Approximately how far?

A. It is between three and four miles as shown on this exhibit 2.

Q. I just want to get these facts in the record.

A. You want simply approximate distances?

Q. Yes.

A. Approximately three or four miles to the westward.

Q. Now, this westerly bed is an entirely distinct coal measure from the easterly vein? A. Absolutely so.

Q. It is different in age? A. Yes.

Q. And in the character and quality of the coal?

A. It is an entirely different bed and has nothing to do with this bed whatever.

Q. Now, intervening between these two beds, as far as anything manifested upon the surface is concerned, there are not any other coal measures, are there? A. No.

776 Q. So that, after you leave the outcrop of the Kemmerer-Cumberland that we have been talking about—

A. That are in the general group here.

Q. —that are indicated by this red line on the map—

A. Yes, the red line is approximately the position—

Q. —there is no coal shown on the surface till you get over to the Adaville vein? A. None at all.

Q. Now, this intervening section of land is of what character?

A. It is a valley, underlain by a shale series which, because of its softness, weathers down and is responsible for that topographic feature.

Q. There is a good deal of wash soil on it?

A. Yes.

Q. What kind of soil is that?

A. It is mostly a residual from that shale.
Q. What would you call it, as a soil expert?
A. It is an alkaline loam there.
Q. And the alkali is of what character?
A. It is what is generally called in the West the white alkali.
Q. Do you find any other kind of alkali in the valley?
A. Not that I know of.
Q. There is no black alkali?
A. I have never seen any.
Q. How do you distinguish between the two alkalies?
A. Well, I might say the general superficial appearance of the two. There was no chemical analysis made of them.
777 Q. Well, does what is known as black alkali ever appear white in color?
A. Why, I have not that impression.
Q. You don't know of that? A. No.
Q. You don't know the chemical composition of those alkalies? A. No.
Q. Which of the alkalies is the more injurious to vegetation?
A. My impression was the black alkali..
Q. Why? A. I don't know.
Q. Do you know what the composition of the black alkali is? A. No.
Q. Or the white alkali? A. No.
Q. You were determining the soil values of this land?
A. I said I made the reconnaissance survey there.
Q. And did you conduct any soil analyses?
A. No soil analyses were made; it was merely a question of the surface.
Q. Now, in answering the questions in regard to the possibility or probability of raising crops on this soil, you were giving the same without any analyses as to the values of the soil itself for the purpose of raising different sorts of crops?
A. Without chemical analyses. The vegetation growing on the soil is a fair indication of what can be raised.
Q. At all times would you say that is true?
A. I think that is generally true, and generally so regarded.
Q. You do not wish to qualify as an agricultural chem-
778 ist, I suppose? A. No.
Q. Sage brush, was growing there, was it? A. Yes.
Q. Is that an indication of poor soil?
A. Oh, not entirely so.
Q. As a matter of fact, sage brush has been the chief natural growth of what has been developed into the most fertile valleys in the West, hasn't it?
A. Certain regions with a growth of sage brush. That is a poor, stunted growth of sage brush there.

Q. You say it is stunted; are you sure that there is not a very fine and abundant growth of sage brush?

A. It is practically all there is on the land.

Q. Isn't there a growth of what is known as bunch grass?

A. Yes, there is grass there. It has been grazed pretty close.

Q. Yes, but naturally the land affords pasturage for stock?

A. Yes. Not very good pasturage.

Q. Now, in determining the value as to the irrigability of this land, I believe you testified yesterday that in your judgment it could not be irrigated? A. Yes.

Q. Was that an opinion based upon the condition of the water right titles or as an engineering impossibility?

A. It involved three factors, the condition of the water right titles—

Q. How about flood water?

A. That would be involved in the second factor, and the
779 cost of constructing the work, and the value of the land after you got the water on it.

Q. What would be the cost of constructing a canal or ditch which would carry water from Ham's Fork into this valley?

A. I don't know; it would be very large.

Q. Now, Mr. Veatch, it is true, is it not, that you, as a geologist, recognize that there is a limit to which you can successfully and profitably mine coal in depth? A. No.

Q. There is no limit? A. There is no limit.

Q. Now—

By Mr. Burke:

Q. Is there anything you want to explain?

A. I was simply going to add that mines are being worked now in parts of the world to a depth of five thousand feet, and Mr. Griffiths, who testified here yesterday, knew the character of that land, and he did not seem to feel any doubt as to the depth.

By Mr. Kelley:

Q. I am not asking you for your opinion now; you have given it, have you? A. Yes.

Q. Then, if coal underlies the surface in sufficient quantities to justify its working, assuming it to be near the surface and of ready access, you believe that the same coal should be worked, irrespective of the depth?

A. I think it will be.

Q. Would the fact as to whether or not you could reach
780 that coal on the slope from the outcrop make any difference?

A. It would affect the initial cost of mining.

Q. But it wouldn't make any difference in your classification of the lands, for instance, as workable coal lands?

A. No. It would add to the cost of getting at the coal and getting it out, commercially.

Q. The first cost. Would it add sufficiently to prevent it being gotten out profitably there?

A. It might, in some instances, yes.

Q. Now, I would like to get your idea clearly as to what would be the limit in a coal seam of this character, for instance the one we have been talking about, to which you could go down vertically to work the coal?

A. That matter was discussed at length in the Geological Survey, and I argued for a depth of five thousand feet.

Q. And you believe that you could sink to a depth of five thousand feet before encountering the coal, if you didn't have the benefit of the slope to work down, and still mine coal of this character under the conditions which exist in Wyoming?

A. I should very much prefer to have a shallower shaft.

Q. Will you answer my question?

A. I would not sink on it five thousand feet to mine. That is the extreme limit of mining.

Q. How far would you sink?

A. Why, I think that a shaft in the neighborhood of three thousand feet or four thousand feet would be right.

Q. Let us have no misunderstanding about this. Do you mean to tell us as a practical proposition that you could begin at the surface and sink a shaft vertically three thousand feet for the purpose of mining this coal?

781 A. I have, within the last three months, been in a mine twenty-five hundred feet deep under the same sort of conditions, by a practical company.

Q. Please answer my question. A. Yes.

Q. You do? A. Yes.

Q. And it is upon an opinion such as you have now expressed, or rather, in view of your opinions upon these matters, that you have given all of your evidence; you have considered these things? A. I have considered all these factors.

Q. Now, was your argument accepted in the Department of the Interior or in the Geological Survey?

A. It was in part.

Q. In what part?

A. I was ordered to classify the land in here for the present to a depth of three thousand feet, because that was the depth to which the Diamond Coal & Coke Company showed, on the maps submitted, to be the depth that they intended to mine. That was the sole reason for that three thousand foot line.

Q. The sole reason contributing to it was the maps you received from the Diamond Coal & Coke Company?

A. That was the basis for the three thousand feet.

Q. So, then, you classified the land in here as coal to the depth of three thousand feet vertically?

A. Yes, that was the idea.

Q. As what did you classify land that would lie at a greater depth than that, land in which the coal would lie at a greater depth?

782 A. I marked it as coal bearing. What was done with it after it left my hands I don't know.

Q. Did you classify the land in this vicinity in that way?

A. It was done under my direction.

Q. Have you that classification with you? A. No.

Q. Did you classify any other land than that right in the vicinity of the Diamond Coal & Coke Company workings as deeply as that?

A. All of the coal along through this Unitah County region was classified to that same depth, three thousand feet.

Q. It was? You are sure of that?

A. Well, that was the way it was to be classed.

Q. Your classification is the only classification that has been made, isn't it? A. Yes.

Q. That would carry the coal land how far on the surface, as a general proposition, in a country like this, from the outcrop?

A. It would be in the neighborhood of approximately a mile and a half; between a mile and two miles, according to the variation in the dip.

Q. And under the general classification that you say you adopted, practically all of this land in controversy would be included? A. Yes.

Q. I believe possibly except section 12?

A. Section 12 would be deeper, and part of 18, in the western part.

Q. Do you know what this line in pencil, that has been
783 traced along this map indicates; did you put it there?

A. I think that is the three thousand foot line. You can tell it by comparison with this exhibit No. 2 here. It shows there in the final form.

Q. It is not designated in any way on the map. I just want to understand it. You think that is what it means?

A. I think it is possibly in that position.

Q. It did not strike you that there was any coincidencce between the possibilities of trouble, and the fact that you fixed, as about the utmost limit of the coal land, the property line of the Diamond Coal & Coke Company, did it?

A. No, that was not involved in the decision. There were several factors involved—not involved wholly. There was no question of trouble, and that is only a possible trouble. I

had no idea of that, but the Diamond Coal & Coke Company's actions, without regard to the ownership, was involved in that five thousand foot limit. There were other factors involved in it, the fact that coal mines are working now to that depth—

Q. Not in that vicinity?

A. No. The fact that the Diamond Coal & Coke Company had bought to that depth, and also the Union Pacific Coal Company had bought land down the dip from the coal to that depth. Now, it appealed to me that if practical men working in that region would buy to that depth, that that was a fair depth to make.

Q. And that is the reason you took that depth?

A. Yes.

Q. Mr. Burke repeatedly asked you yesterday if your visit was made in anticipation of any lawsuits, when you came out in 1905, and you answered no.

784 A. Yes.

Q. Did your visit out here have any sequence in these lawsuits? A. I think so.

Q. Frankly, you believe, do you not, that this present litigation is largely the result of your own recommendation?

A. Yes.

Q. And that you acted in the initiation, did you not; that is, you initiated the thing by reporting what you believed to be the facts to your Department?

A. The history of that matter, if you want it, is—

Q. I will just ask the questions, and you can answer yes or no. I don't care anything about the history of it.

A. Well, I would rather explain the matter, if you wish?

Q. Well, did you initiate it, or were you directed to come out here and make a report of the conditions, with a view to litigation?

A. I had no direction as to possible litigation. I completed my field work, my whole investigation here without any thought or knowledge that there was anything wrong. I thought that, since this was an economic survey of a coal field, it would do the country more good, perhaps, if it should be accompanied by maps showing the vacant, public lands, so that, if a man should read the report, he could say: "Here is good coal."

Q. I don't want a speech, Mr. Veatch.

A. I am not making a speech, I am making an explanation—and that he would see where land could be acquired. Now, in getting that from the Land Office records, I found that, following down from the coal crop—

Q. There was no vacant land?

785 A. —there were a whole lot of agricultural entries just where a man would take up coal.

Q. Who, on God's earth, would take up coal there, you?

A. If I had the money.

Q. In one hundred and sixty acre tracts, do you mean to tell us that you would go and sink three thousand feet down to encounter a coal seam?

A. I think your point of the present law being absolutely impossible, is right.

Q. Oh, then you think that no man, if he was guided by the present law of the United States, would have taken up this land as coal land, to be fair about it, now?

A. I would not take up one hundred and sixty acres.

Q. No, and you couldn't take up any more, could you?

A. I would not take up coal lands as agricultural land.

A. Neither you nor any one else could make the oath required by the Government, that this land was coal land, from an examination of its surface, from anything that would be disclosed upon its surface, could you?

A. I think not, but on the other hand, I could not honestly make the oath that I did not believe it was coal land, that it was non-mineral land.

Q. You could not? A. No. You are between two horns.

Q. It was public land? A. Yes.

Q. It was open for sale? A. Yes.

Q. It was agricultural land, because it was non-mineral land within the meaning of the law; isn't that true?

786 A. I think it is non-mineral land.

Q. You think it is? A. Yes.

Q. You could not meet the requirements of the Government to make it non-mineral land, could you, from the surface?

A. I could not, within the cold meaning of that affidavit.

Q. Mr. Veatch, I wish to call your attention to this book or folio from the United States Land Office, filed November 27th, 1907, Thomas V. Davis, Register, Evanston, Wyoming, which contains a classification of the land, and particularly to the sheet entitled: "Township No. 21 north, range No. 116 west, meridian, Wyoming."? A. Yes.

Q. There is shown a classification upon that sheet of the land embraced in township 21, in the vicinity of the land which we are discussing. A. Yes.

Q. Now, the classification, beginning at the easterly classification, shows coal land, does it not? A. Yes.

Q. And then westerly of that it is classified as "Coal, but too deep."? A. Yes.

Q. Classified as non-coal land, and then at the westerly extremity of the map is a classification of coal land again?

A. Yes.

Q. And the land varies in price according to the classification, that enclosed within the red boundaries being twenty dollars an acre, I assume? A. Yes.

787 Q. Within the green, seventy-five dollars.

A. Yes, that is what the map says.

Q. And within the yellow, forty dollars?

A. Yes.

Q. And within the purple or lavendar color, twenty-five dollars? A. Yes.

Q. Is that the classification that was prepared under your direction and instructions?

A. I presume so; it is of the same general character.

Q. Now, then, the land that is classified on this map as coal, but too deep, is land which, because of the depth of the underlying coal, can not be regarded as coal lands, as I understand? A. That is what the map says.

Q. Well, that is what the classification means, isn't it?

A. I didn't classify it that way, as I testified before.

Q. Well, this is a government classification? A. Yes.

Q. I am simply asking you for an interpretation of the map.

A. There are two, conflicting statements there. One says, coal, but too deep, and the other says, non-coal lands.

Q. Those are not conflicts at all, are they, Mr. Veatch?

A. Yes.

Q. Well, that is what I am asking you to explain, the legend on the map. A. I dont know.

Q. The land overlying the coal, but too deep, is classified on that map as non-coal land, isn't it?

A. I didn't make the map.

788 Q. Oh, please answer the question. It is perfectly simple.

The Master: Answer the question.

A. I think the data there was put on by two different persons; that is my interpretation of it. The one who put upon it coal, but too deep, and the other, who put non-coal land on there, undoubtedly held that that was not coal land.

Q. Do you know who that was? A. No.

Q. Now, going back to the question whether you regard this as coal, but too deep or non-coal land, all of this land that is colored is classified, according to the Government, classification on this map, as non-coal land, is it not?

A. I dont see that that proves it. I have stated what I believe as to that, Mr. Kelley, that there are two, conflicting statements there.

Q. Well, is this land, according to this classification, coal land or not?

A. One statement says it is not coal land.

Q. And the other one says it is coal, but too deep?

A. That is what it reads.

Q. What does that mean?

A. I have explained that, Mr. Kelley, the question of depth, and why a depth was selected and what was involved there. I was told to classify the land to a depth of three thousand feet at the present time. That did not involve the statement that below that was not coal land.

Q. You told me a little while ago that you were re-
789 sponsible for the classification of this land in this vicinity?

A. I told you that I was told to classify the depth at three thousand feet.

Q. And that that was done?

A. That was done under my direction.

Q. Do you mean to tell the Court, under the sanction of an oath, that you are able to interpret the classification of the land marked, coal, but too deep, together with the other statement, non-coal land, as meaning anything else but that, according to the Government classification, this land is not to be regarded as coal land?

A. That is a matter that I have no opinion on.

Q. I ask you for your best opinion.

A. I have said that the statement was contradictory, that the men who put that on there that it was not coal land, that I did not believe that that classification was the best one.

Q. I am not asking you now for your personal opinion about the facts, but I am asking you for an interpretation of this map. What was this map furnished to the Register for?

A. For the purpose of the sale of coal land, I understand.

Q. Under this classification furnished the Register, is there any doubt in your mind but what he would sell this land marked, coal, but too deep, and non-coal land, as non-coal land? Have you any doubt about that?

A. I think some registers might hesitate.

The Master: Can't you answer these questions yes or no?

Mr. Birch: I dont see how he can answer it any differently from what he does, and be honest.

790 The Witness: It is a fair and square answer.

The Master: I think he can answer yes or no, and then explain. This is taking lots of time.

The Witness: The map explains itself.

Q. You refuse, then, to give any direct answer as to whether or not it was the purpose of the United States Government in furnishing this classification to its Register, to designate the lands which should be sold as coal lands, and the lands which are not coal lands?

Mr. Birch: That depends upon his knowledge entirely. He can not answer for the entire United States Government, and I say that no man can be obliged to answer yes or no to a question that is not within his knowledge.

Mr. Kelley: It is not a question with reference to the map at all; it is a question whether he refuses now to give an answer as to the meaning of the map. If he doesn't know he can say so.

A. I don't know. The Land Office is the proper source for that information.

Q. Notwithstanding the land was classified under your direction and your control, and that this is the only de-
791 tailed classification that has ever been made of this particular land?

A. I have stated, Mr. Kelley, very fully the facts in that case.

Q. Just answer this question.

A. I think that is my answer.

The Master: Read the question.

Q. (Question read.)

Mr. Birch: I object to the question because it assumes an absolutely incorrect basis. The witness has said that he made an investigation and a report, not that he classified the land.

The Master: Didn't he state a few minutes ago that he classified the land?

Mr. Evans: He said that he classified the land, under the direction to classify it as coal land to three thousand feet.

Mr. Birch: If he so stated then I am wrong.

Argument by counsel.

Mr. Birch: I insist upon the objection, and ask that the record be read.

792 The Master: Let the record be read.

(Stenographer read from the record as to this matter.)

Mr. Evans: I suggest that the record show that the stenographer read the evidence to Judge Birch.

Mr. Birch: Yes, I was about to show it myself in the record. After hearing the record read, I still further insist that a fair interpretation of the witness's testimony upon the subject of the classification of the lands in this vicinity, does not indicate that he is in any wise responsible for the map presented by counsel for the defendant in evidence here, nor that he furnished the entire classification upon that map, and therefore that the question asked by counsel, in assuming that he is so responsible and should be made accountable here in his testimony, is upon an incorrect basis, and therefore that the question is not a proper one, being incompetent as cross-examination.

Mr. Kelley: We insist upon the question.

Mr. Birch: I insist again that he has fully answered, to the best of his ability, that he is not responsible for that map, that somebody else is responsible, and that he can not answer a question which is based upon matters within the control of entirely different officers of the Government. He has stated that this was the action of the officers of the Land Office.

793 The Master: I should think he can answer that question.

A. I say I don't know. I don't know the purpose of the Government. I know what I did in the matter.

Q. Answer the question.

The Master: Answer yes or no.

Mr. Birch: He can not answer yes or no without perjuring himself or committing an error; it is impossible to be done.

Mr. Kelley: He can say he refuses to give a positive answer, and tell why.

Mr. Birch: I am willing that he should answer that way.

A. I refuse to answer in the sense that I am responsible for that map. The facts in the case are that I was told to submit a map according to a certain, specified schedule, with the making up of which I had nothing to do. The map was submitted in the way that I have testified, and beyond that it was not the approved classification; it was merely my report to the officer who should pass upon it.

Q. And your classification was not accepted then?

A. This is the result that you see.

Q. Well, was it accepted or wasn't it accepted? If it was accepted, this is your map.

[Mr. Birch:]

794 Mr. Birch: I object to the question again, for the reason that it is incompetent. He has already shown that it was accepted, but not adopted. That use of the term accepted by counsel puts him in error in regard to it. The fair inference is that he made a report, and that the report was accepted, but it was not adopted by the people who made that map.

Mr. Kelley: Then, I will change the question.

Q. Was your classification adopted?

A. No; I have said that it was not.

Q. All right. Now, Mr. Veatch, you have the line of outcrop indicated as it runs through township 21, haven't you?

A. Yes.

Q. Will you take and give me, from any data which you have or from which you can compute, the depth of the classification of non-coal land along, say, the south line of section 12, section 11 and section 10, from the outcrop. Using the south line of sections 12, 11 and 10 as a section line, what would be the depth of the coal bed at the point where it passes from the classification as coal land to the classification as non-coal land?

A. The center of No. 11 is twenty-two hundred feet, according to this map.

Q. Have you got the inclination of the vein at that point?

A. Not at that exact point. I have the dip on the east side, and the dip near the middle of the valley, and the dip on the west side. The dip is much flatter on the east side, and that thing is going down flatter than the west side, as the dip increases going westward, and if I attempt to calculate
795 it from the dip on the outcrop there, it will come much too shallow.

Q. Can you give us, from what you call the dip on the outcrop, the depth of the coal beneath that non-coal area?

A. Not from that alone.

Q. Well, you can compute. Have you got the dip?

A. I can compute if I should use this dip. If you will assume that the dip is a certain one, and that that dip continues under the whole thing, if you will give me a scale and a protractor I can compute it for you very quickly.

Q. Cant you compute it very quickly by trigonometry, if you assume a dip of fifteen degrees?

A. I can with a scale and a protractor.

Q. Unfortunately I haven't a scale and a protractor.

[Q.] Well, I haven't a book of logarithms, or a book of trigonometrical formulas.

Q. Well, here is a protractor, and a ruler. Now, measure on a fifteen degree dip what it would be.

A. It gives me a depth of approximately sixteen hundred feet.

Mr. Burke: Where is that point?

Mr. Kelley: That is along the south line of 11-21-116.

Q. So that, if you assume that the coal is descending from the crop at a regular inclination of fifteen degrees, according to the calculation that you make, the depth of the coal at the line of demarkation between the non-coal land and the classified is sixteen hundred feet?

796 A. Approximately, yes.

Q. Will you give me the same result, obtained from a similar dip, at the south line of section 35, same township and range, where the line of demarkation between the classified coal land and the non-coal land is shown upon this map to be the center line of the west half?

A. Twenty-one hundred feet there.

Q. Are you sure about the correctness of that calculation?

A. I think so; as far as I know.

Q. You are satisfied with the calculation? A. Yes.

Q. The vein is, as a matter of fact, of approximately a regular dip along at that point, until you get beneath any elevation that you have spoken of?

A. Yes, it is very—it is rather uniform. The contour on the map will show the variation very fully. It is about similar to this upon defendant's exhibit No. 2.

Q. Now, you were also asked a question by Mr. Burke yesterday in regard to this northerly country, and I understood you, Mr. Veatch, as saying that out to the boundary of this color, that was all coal land? A. Yes.

Q. There are, of course, a large number of homestead entries within the territory that I have described?

A. Yes; also some coal cash entries.

Q. Have you any similar classification to the one to which I have referred in the folio, of township 20, or do you know whether there is any existing, such as this?

A. I made a report of that, according to orders.

797 Q. Have your maps been prepared of that yet?

A. That I don't know. My report has been submitted.

Mr. Kelley: In the folio that the Register has here, there is not included any classification south of 21 in this township. Now, Mr. Burke, will you stipulate that Mr. Davis may make an exemplification of this map to which I have referred, from

this folio, and that it may be introduced in the record subject to whatever objections you may have to it?

Mr. Burke: Yes.

Mr. Kelley: We offer the map referred to in evidence, the classified map, showing the classification in township 21, range 116 west, and it is stipulated that an exemplified copy may be made by the Register of the Land Office, and incorporated in the record in its stead, to be marked defendant's exhibit No. 3, on cross-examination.

Mr. Burke: We make no objection to the introduction of this plat on the score of a copy thereof being substituted, but we reserve an objection as to its being incompetent and immaterial, in that it is a plat made long since the time when the lands in controversy were entered, and long since the institution of this suit.

Map referred to, admitted in evidence, marked defendant's exhibit No. 3.

798 Q. Not for the purpose of anything else than to straighten you out on your calculation, Mr. Veatch, I understood that, on your first calculation, as to section 11, your horizontal distance was a mile, was it not?

A. No, I think it was a mile and an eighth.

Q. And the angle was fifteen degrees? A. Yes.

Q. What was the horizontal distance in the second?

A. I didn't make any computation in the second case; you didn't ask for one. You asked me on the map what it would be, and I gave it from the map from my own data.

Q. Didn't you understand that I wanted a computation, not a presumption?

A. No, I didn't know you wanted a computation.

Q. What did you assume that I meant when I asked you if you were satisfied with your calculation?

A. Because it is a computation on the map there.

Q. Well, I did want it made in the same way.

A. On a fifteen degree dip?

Q. Yes.

A. That would be the same as the first computation, sixteen hundred feet, about that, approximately. Twenty-one hundred feet is what I believe it to be, but sixteen hundred feet is what it is on Mr. Kelley's basis of computation.

Q. You said you had seen a mine worked to a depth of five thousand feet?

A. No, I didn't state that I had seen one worked that deep, but that there were coal mines in the world worked to that

depth. I said I had s[illegible] a mine worked to twenty-five hundred feet in depth.

799 Q. Where was that?

A. In Sidney, New South Wales.

Q. Through a shaft? A. Through a shaft.

Q. Through a vertical shaft?

A. They put down two shafts.

Q. What was the depth?

A. The shaft was over twenty-five hundred feet deep.

Q. Do you know the wages paid in Australia?

A. No, I haven't them on hand.

Q. Do you know the cost of mining coal? A. No.

Q. Do you know the price obtained on the sale of coal?

A. No.

Q. Mr. Veatch, how many square miles was embraced in your survey, as shown by your map?

A. The total area there, I think, is about in the neighborhood of twenty-five hundred square miles, but you understand that a large part of that, in fact, the greater part of it was not covered with the detail that the coal area was covered. It represents tertiary material or deposits, and you will notice on the map that the contours stop at that point, and it was sufficient for the aerial map to map the edges of that formation to a great extent, and that is what gave the large extent of land.

Q. But you did go over the entire territory?

A. Not in detail, but simply to determine it was tertiary.

Q. And you spent a hundred days? A. Yes.

800 Q. That would average twenty-five miles a day?

A. Yes.

Q. I understand, of course, that you examined more some days, and less on others? A. Yes.

Q. And you have not been back there since?

A. I was there the next summer.

Q. Engaged in the same work?

A. In a part of the work, and my assistant was again there the following summer, and checked parts of our mapping in part of the area.

Q. When was your last visit up in that neighborhood?

A. In the summer of 1906.

1-30 P. M.

Q. Mr. Veatch, in placing the outcrop line on the map, there has been no attempt to follow exactly the scale of the map, has there? A. No.

Q. And so that the record may be clear upon it, the same answer would apply to the various diamond drill holes and markings indicating prospect pits and slopes along the line?

A. They are approximate locations.

Q. You simply put them on as nearly as you could from the detailed map which you had? A. Yes.

Q. And that is true also with reference to the fact that no attempt has been made to show the exact size or char-

801 acter of these openings? A. No.

Q. You did not visit this field at all, you have stated, until 1904? A. 1905.

Q. 1905, yes. And as to the work which had been done prior to your arrival, of course you have no definite information as to when that was done?

A. What sort of work?

Q. I mean the general prospecting along the line of the outcrop?

A. Only as I got it in the field and my belief.

Q. But as to these prospect holes which you have indicated upon the crop, you don't know when that work was done of your own knowledge at all?

A. No. I think I know when it was done.

Q. Well, anything that you ventured upon that would be an opinion from the apparent age or other conditions surrounding the work?

A. No, no. The Union Pacific prospect map.

Q. I am not talking about your hearsay information, Mr. Veatch. You understand in law you are only supposed to testify as to your absolute knowledge, except where your opinion is admissable. Now, you don't know of your positive knowledge when this work was done?

A. I was not there at the time it was done.

Q. Mr. Veatch, will you please tell us how old you are?

A. Twenty-nine.

Mr. Kelley: I now offer in evidence defendant's exhibit No. 2, as part of the cross-examination of Mr. Veatch.

802 Redirect Examination

By Mr. Burke:

Q. Mr. Veatch, Mr. Kelley asked you to make some computations in relation to the vein of coal as it lay under section 11, township 21 north, range 116. Now, as I understood you, those computations were made on the basis of a dip of fifteen degrees, were they not?

A. On Mr. Kelley's hypothesis of what was happening there.

Q. What was the dip of the vein there, if you know?

A. It runs from twelve to fifteen. A little north of there it goes to twenty.

Q. At what point did you make the calculation in section 11?

A. The center of the south line; the quarter corner on the south line.

Q. Well, that was made on the hypothesis that the dip was continuous at a degree of fifteen, was it not?

A. That was Mr. Kelley's hypothesis, yes, sir.

Q. About what was the depth of the vein at that point?

A. Twenty-two hundred feet, as I testified, according to our data.

Q. Now, again he asked you to make some computations in relation to the depth of the vein on the south line of section 25 in the same township and range, I think at the quarter point immediately east of the southwest corner of that?

A. It was a quarter of a mile here, yes.

Q. And upon what hypothesis did you figure that and find it to be sixteen hundred feet?

803 A. The hypothesis propounded by Mr. Kelley, fifteen degrees.

Q. What depth is the vein, as a matter of fact, at that point?

A. It is about twenty-two hundred feet.

Q. There has been introduced by Mr. Kelley for the defense, a map, exhibit No. 2. You may state as to whether or not that map was made by you.

A. It was made under my direction, and it is correct.

Q. What is true as to its being accurate in the matters which it purports to represent and state? A. It is accurate.

Q. Have you made any other map, showing any more clearly the depths of the vein at given points as it relates to the land in controversy and the surrounding lands about which testimony has been given?

A. The map that Mr. Kelley introduced was a proof on which there were no colors printed. We have a colored map in which it shows more clearly between what areas the coal lies at a depth of less than three thousand feet, and less than five thousand feet, and over five thousand feet.

Q. Will you produce that map?

A. The map is there on the table.

Mr. Burke: We will have this map marked complainant's exhibit No. 311.

Q. You may explain the colorations on this map, complainant's exhibit No. 311, if you will.

A. Do you mean in detail, or in regard to the coal?

Q. In a general way, so that the Court may under-

804 stand what the map is and what the coloration means.

A. The color scheme is shown on the right hand side of the map. As relating to the depth of the Kemmerer coal, it shows in light gray the depth of the coal that lies from the surface to a depth of three thousand feet. In a darker shade

of gray it shows from three thousand to five thousand feet, and in a much darker shade than the other two, it shows over five thousand feet.

Q. Does it show also the depth of the coal as underlying the sections in controversy in this case? A. Yes.

Q. And in the same colors as that?

A. Yes, it will show the limits there.

Mr. Burke: We now offer in evidence complainant's map, exhibit No. 311.

Mr. Kelley: Objected to on the ground that it is not redirect examination, and that no proper foundation has been laid for the introduction of the map in evidence.

Map admitted in evidence as complainant's exhibit No. 311.

805 Q. Now, going back to the earlier part of Mr. Kelley's examination, he called you in question as to the procurement of certain exhibits made in this case. I will ask you when you first knew that you were to be a witness in this case?

Mr. Kelley: Objected to as immaterial.

A. When I reached Victoria, British Columbia.

Q. When was that? A. On the 12th of March.

Q. And how did you get to know then as to your being wanted?

A. There were orders from the Department to proceed at once to the District Attorney's office at Cheyenne.

Q. Orders from your Department? A. Yes.

Q. And what did you find when you got there as to my being possessed or having ordered any of these records that have been introduced to be sent to me?

A. I found that you had ordered the material.

Q. What is true as to whether or not it was then that you were subpoenaed? A. Yes, I was.

Q. Are you appearing here voluntarily for your own purposes? A. No. I am not enjoying it.

Q. I don't ask you whether you are enjoying it or not, and I don't care, but I ask you whether you were brought here by the process of the Court? A. Yes.

Q. And compelled to produce these papers here?

A. Yes.

806 Q. I wish to ask you this, Mr. Veatch, and it possibly may not be re-direct examination. What is the weight of this bituminous coal per foot per acre?

A. You mean how much would be produced?

Q. Yes, in weight.

A. Well, it would vary with the specific gravity, but taking the average of the bituminous coals, it is probably about eighteen hundred tons.

Q. Mr. Kelley also asked you as to where you observed the mining of coal through a perpendicular shaft under conditions that are similar to those met with in Wyoming, and I think you told him it was in New Zealand?

A. It was in Sidney, New South Wales.

Q. What was the character of that coal that was being mined there?

Mr. Kelley: Objected to as immaterial, for the reason that the witness is already disqualified from testifying to similar conditions.

A. It was similar to this.

Q. What was the thickness of the coal that they were mining there at that depth?

Mr. Kelley: Objected to as incompetent, irrelevant and immaterial for any purpose.

A. As near as I remember, at the shaft there was a three and a half foot bed, then a thickness of several feet of shale and dirt, and then another three foot vein. It was very
807 difficult to mine that as a single hole or single working.

Q. Then, I understand that at or near the bottom of this shaft, some twenty-five hundred feet down, they were mining what was really two veins of about three feet each?

A. Yes, they were working them.

Q. A short distance apart? A. Yes.

Q. And the aggregate of the two veins was only six feet?

A. Yes.

Q. Mr. Veatch, if it is practical to mine coal upon this Diamond-Cumberland vein at Diamondville for a depth of three thousand feet, is there any reason why, if the same vein underlies the lands in controversy, it could not be mined at the same depth, that you know of?

Mr. Kelley: Objected to as incompetent and immaterial.

A. No.

Q. If mining takes place at Diamondville or Kemmerer or any of those mines up there at a distance of one half to three-quarters of a mile west of the vein, is there any reason why the mining could not take place from the same outcropping of the vein to the same distance over against the lands in controversy in this case?

Mr. Kelley: Objected to as incompetent, immaterial and irrelevant, as argumentative, and as merely calling for a conclu-

sion of the witness upon a state of facts that has not been shown to exist.

808 A. The same conditions exist throughout that region.

Q. Mr. Kelley also asked you in relation to your not being able to make an affidavit, such as the form that is usually used, as I understand, in connection with a coal entry?

A. Yes.

Q. As related to the lands in controversy. What did you mean by that?

A. My understanding is that that affidavit calls for a statement that the coal is discovered or found on the surface of the land. If I am right in that particular, I could not make that affidavit.

Q. What do you mean to say, then, to Mr. Kelley, that there has been no discovery of coal on the surface of these lands?

A. No coal has been found on the surface of those lands.

Q. But I understood you to say that you classified these lands as coal lands? A. I did.

Q. State in a few words why you classified them as coal land?

A. Because a practical coal man would buy them for that purpose.

Q. The coal outcrops to the east, and dips beneath those lands, and we have every reason to believe that there is coal there.

By Mr. Kelley:

Q. Who is "we". Do you use that editorially or how?

A. Editorially. Change that to "I".

809 By Mr. Burke:

Q. I will ask you if you had anything to do with the making of this plat which defendant has introduced in evidence here as its exhibit No. 3, purporting to be a classification of lands in township 21 north, range 116?

A. This is the first time that I have seen that plat.

Mr. Kelley: We move to strike the answer out as not responsive.

Q. Can you make that answer more fully responsive?

A. I testified that I was directed to make a map to a depth of three thousand feet, according to a schedule of classification furnished me, and that such a map was made under my direction, which I stated was coal bearing beyond that three thousand foot limit, and that I forwarded it to the officer in charge. What was done with it after that I don't know. This is not the

map, and it does not show coal to that three thousand foot limit which was called for in my instructions.

Q. What is the fact as to whether or not that map or that classification is in accordance with the data that you sent to the map-maker for that purpose?

A. He is not correct as to his three thousand foot limit. I believe it does not correspond to my original map:

Q. What, then, is true as to whether the data was furnished for making the maps of townships 19 and 20 by you?

A. The same kind, in the same way, and with the same instructions.

Q. Do you know why they are not here in this office?

A. No, I have no knowledge about that, none whatever.

Q. Is there any matter that you have in mind now, Mr.
810 Veatch, that you wish to explain as relating to any testimony that you have given here, which you did not have the opportunity to fully explain upon the examination?

A. The only one is that matter of the three thousand foot limit of those lines. The maps that I submitted were prepared from this data on there, from the original map, this exhibit No. 311, or the map from which this map was engraved, and this data is the result of our information, and is correct, I think, in every particular.

Q. Then, do I understand you, that if there is any difference between this map, complainant's exhibit No. 311, and the classification as made upon defendant's exhibit No. 3, that you are responsible therefor?

A. No. The depth limit is fixed at three thousand feet.

Q. And that was done by you partly at the Geological Survey Department, or where was that done?

A. I don't know where it was done. I had the circular handed to me with the statement of the three thousand foot depth, and the schedule of values, and I turned it over to my assistant, who prepared the map from this map here.

Q. And you saw that after it was prepared? A. Yes.

Recross Examination

By Mr. Kelley:

Q. Evidently your classification was too strong for even the Government Board to accept?

A. No; it was cut down on their orders.

Q. But they didn't accept your classification?

A. The question of drafting, the copying of the map—
811 there are hundreds of errors possible in copying the map.

Q. Oh, you think it is a mistake in the copying of the map, do you, and not an order of the Board fixing the limit?

A. I am quite sure it is.

Q. I want you to read the degrees of inclination that you have upon your coal outcrop nearest to the points from which you measured the vein in making the computations which I called for this morning.

A. You mean my own computations, or your arithmetical computations?

Q. Your calculations, the calculations given on your map, defendant's exhibit No. 2.

A. The dip in section 11 would be fifteen degrees and twelve degrees, 11-21-116.

Q. I took the steeper of the two dips there for the computation? A. But the dip increases—

Q. Answer my question, and we will get to that after a while. A. Your question was a statement.

Q. The question was, I took the steeper of the two dips down nearest to the line upon which you estimated the dip, did I not, when I took fifteen degrees? A. Yes.

Q. Now, will you read at the bottom of section 35, the nearest dip to that? A. Twenty degrees.

Q. Now, read all the dips, if you please, between the two, that are on exhibit No. 2.

A. I have twenty degrees—

Q. Where is that?

812 A. That is on the south line of section 35, just east of the quarter corner. There is a dip of sixteen degrees just north of the Diamondville mine, in section 34. There is a dip of twelve degrees at the Frontier line that I have spoken of before.

Q. What is that line by subdivision, if you please?

A. It is in section 12.

Q. Now, have you given us all the dips between the two points? A. Yes, all that I have here.

Q. Now, do you say that you did not know you were to be a witness in this case until you reached Vancouver?

A. Yes.

Q. Do you mean by that, that you did not know that you were going to be a witness at all, or that you did not know that you were actually required at this time?

A. I had no notification that I was to be a witness at all.

Q. You knew this suit was pending? A. Yes.

Q. And you knew the nature of the action? A. Yes.

Q. And you knew that you were possibly the only man who could furnish the Government the information that they would require, without somebody being sent in to make an investigation? A. Yes.

Q. So that you did really suppose that you were going to be a witness, didn't you? A. Yes.

Q. You came down to Evanston on a subpoena?
813 A. Yes.
Q. You didn't have any subpoena to bring you to Cheyenne? A. No.

Q. Mr. Burke asked you with reference to your testimony concerning the affidavit which is required in coal land entries. In order that there may be no dispute about the matter, I think, perhaps, it is best to take it from the affidavit itself. We all know what it means, but we can not quote exactly. This affidavit recites, in regard to the surface and the showing that existed on the land actually in controversy: "That there is located and open a valuable mine of coal thereon." That, of course, a man could not ascertain from a mere examination of the surface of the lands in controversy?

A. If there was not a mine of coal open.
Q. And there is no mine now open upon any of these lands?
A. No, there is no coal open on that land.

(Witness excused.)

Mr. Burke: There is nothing further on behalf of the complainant at this time, and there will be nothing further unless we can find the plats classifying townships 19 and 20 in range 116, and township 19 in range 117. We are not informed as to why they are not here, and we desire to make inquiries in relation thereto, and reserve the privilege of introducing those, should we desire, if we can find them.

The Master: Won't you have to get an order from the Court to do that?

Mr. Burke: No, we have got until the 10th of April
814 to conclude our case.

Mr. Kelley: Of course, Mr. Burke would not ask us to consent to that without knowing what is shown by these plats. Our understanding is that you must close your case now.

Mr. Burke: You introduced this plat, and I think we have a right to introduce the others if we can find them, and we want to reserve the right as far as a statement can reserve it, anyway. Perhaps we will have to go to the Court for an order. With the exception of those plats, complainant now rests.

The Master: There has been some discussion about the date to which we shall adjourn. Is it understood that we shall adjourn until the 20th of April?

Mr. Kelley: No, we do not desire at this time to consent to any adjournment further than to the first day fixed in the

order for the taking of testimony on the part of the defendant, to-wit, the 11th day of April. At the same time, we assure counsel for the complainant that we will endeavor to arrange our engagements in Montana and to consult our witnesses as soon as possible, and ascertain whether or not we can postpone the taking of evidence until the 20th of April, and that we will notify Mr. Burke, of counsel for complainant, not later than the 5th of April, as to when we can adjourn to, provided that, if a stipulation is made continuing the hearing until the 20th of April, instead of the 11th, counsel for complainant will stipulate, and the Court will make an
815 order, granting to the defendant an extension of time equivalent to the continuance from the 11th of April to the 20th.

Mr. Burke: We will agree to that. I will also consent that defendant's exhibit No. 2 and complainant's exhibit No. 311 may remain in Mr. Kelley's hands until the hearing is resumed.

Whereupon further hearing was continued until April 11th, 1908, subject to the agreement of counsel.

816 Evanston, Wyoming, Monday, April 20th, 1908, 2 P. M.

Defendant's Case.

Robert Forrester, after being duly sworn as a witness, on behalf of defendant, testified as follows:

Direct Examination

By Mr. Kelley:

Q. You may state your name, please.

A. Robert Forrester.

Q. Where do you reside?

A. Salt Lake City.

Q. What is your occupation?

A. Geologist and Mining Engineer.

Q. How long, Mr. Forrester, have you been pursuing that profession or engaged in it?

A. About twenty years.

Q. You may state, if you please, what were your educational qualifications to enter that profession, and as briefly as possible, your subsequent experiences.

A. I was educated in the common schools of West Calder, Scotland and studied engineering under Alexander Lumsden, and studied geology under James Geikie. In Scotland I have been employed in all matters relating to coal; in fact, I have filled positions from that of common miner through to mine

foreman, and have studied mining methods generally throughout Great Britain, Pennsylvania and this country, Kansas, Utah and generally throughout the West, as well as
817 studying the geology, making a special study of geology in its application to mining.

Q. I will ask you to state, Mr. Forrester, whether or not you have given particular attention to the occurrence of coal and the coal measures in the western part of the United States.

A. I have.

Q. How long a time have you been engaged in the latter occupation particularly?

A. In the west for seventeen or eighteen years.

Q. Are you acquainted with what might be termed the Diamondville coal field at Diamondville and in the vicinity of Diamondville? A. Yes, sir.

Q. How long a time, Mr. Forrester, have you been acquainted with that particular field?

A. I was first made acquainted with it in 1894.

Q. And since that time?

A. And since that time I have visited it at irregular intervals.

Q. In what manner did you first become acquainted with the Diamondville coal field?

A. I was ennaged by the Diamond Coal & Coke Company to open up what is now their No. 1 mine.

Q. Was that the old corporation? A. Yes, sir.

Q. Or rather, it was the same corporation, I believe, but before it passed into the hands of the present management?

A. Yes, sir.

Q. In what capacity were you engaged by the Diamond Coal & Coke Company?

818 A. To open up and equip a mine ready for the production of coal.

Q. At that time were there any coal mines producing in the vicinity of Diamondville? A. No, sir.

Q. Southerly from Diamondville to a point at least as far south as that shaft shown upon complainant's exhibit No. 280, embracing the Cumberland group of mines, had any mine been opened at that time? A. No, sir.

Q. And northerly were there any mines opened up or producing in the vicinity of what is now Kemmerer?

A. No, sir.

Q. Whereabouts did you locate the mine that you have referred to? A. It is now called No. 1 Diamondville.

Q. It is the mine which is at Diamondville? A. Yes, sir.

Q. How long a time did you continue operations at that place? A. About nine months to a year.

Q. And what did you do then with reference to this particular coal field?

A. That is, after my connection was severed there?

Q. Did you sever your connection at the end of nine months?

A. Simply my work was completed.

Q. Since that time have you been engaged in any coal mining operations in the Diamondville field? A. No, sir.

Q. Have you since that time made any detailed study of this coal field? A. Yes, sir.

819 Q. At what periods and covering what length of time have you made this study?

A. It is somewhat hard to tell just the periods or dates at which I was in the field, as I have passed through the fields more than once, and have been studying the geology of the field as I was going through, and have travelled through from Ham's Fork as far as Evanston.

Q. Would it be true to say then that you have made observations at more or less infrequent periods since that time?

A. Yes, sir, that would be the best way.

Q. Have you made, recently, any detailed study of that field? A. Yes, sir.

Q. Tell us when.

A. From April 6th to April 12th of this year, inclusive.

Q. What was the purpose of this investigation, this last investigation or study.

A. To visit the land in controversy in this suit and ascertain whether or not it would be coal land or whether it would be probable that coal would extend under the land.

Q. Now, then, before taking up your study of the field, I want you to define a few terms, so that we may know exactly what you mean when you use them in connection with your evidence. Will you kindly tell us what you mean by the term outcrop as you will use it.

A. Any stratum which comes to the surface and is visible on the surface of the ground.

Q. Do you have reference more particularly to the edge of the stratum?

A. In an inclined stratum the edge usually is the only
820 part of it that is exposed, and therefore would be the outcrop if exposed, but if covered you could not call it an outcrop.

Q. What do you mean by dip?

A. The inclination of the stratification in its relation to a horizontal line.

Q. Strike.

A. Strike is a level line and at right angles to the dip.

Q. Horizon.

A. The general line along which a certain series of rocks or beds will outcrop if no covering of superficial material exists.

Q. Want.

A. A want is usually spoken of in coal mining as that portion of the coal bed having been replaced by some other foreign matter, which may be a sandstone and may be a shale or any other stratum, and it may be either the erosion of the coal after it had been formed or it may have been an inequality of the surface upon which the coal has been laid down, and therefore in that case there would be no coal formed at that point.

Q. A thinning.

A. A thinning is usually the edge of the coal field or coal basin, in which the coal or other beds gradually die out.

Q. Fault.

A. A fault is a fracture in the stratification, by which the same bed occurs at different elevations with relation to itself.

Q. Roof.

A. The roof is that stratum which forms the first covering to the coal bed after being formed.

821 Q. Does that particularly refer to the exposed surface or to the stratum that is above the coal.

A. It is usually the stratum which is on top of the coal.

Q. A slope.

A. Is a narrow work through which the coal is supposed to be worked, and is usually driven upon the greatest dip, if available, to and from which the levels on which the rooms are opened for the extraction of the coal.

Q. What is an entry?

A. An entry is usually the level driven off the slope. Sometimes if the bed is level, the main entrance would also be called an entry, and would take then the same meaning as a slope upon a pitching bed.

Q. In making the detailed examination that you have referred to, did you examine the surface and also the underground workings in the vicinity of this coal bed or field?

A. In the vicinity of the land in dispute, yes, sir.

Q. We will take up first, Mr. Forrester, your examination of the surface. Tell us, if you please, over what extent you made your detailed study, that is, in a very general way, just where did you begin, northerly?

A. I examined the field as far north as the Kemmerer mines, and as far south as close to the Cumberland No. 3 mine, and generally throughout the Mammoth Hollow.

Q. Now, before beginning your description of the surface of this particular coal field, I wish you would tell us from your practical and scientific experience some of the difficulties that are met with in developing coal fields in the West, particularly those applicable to this field.

A. Well, the first difficulty and the main difficulty is
822 the fact that the coal bed is very irregular in thickness; second, the pitch or dip of the bed is very much against the practical operations economically; and third, the interstratified bands within the coal bed itself; and again the variable character of the roof and the soft nature of the floor, together with the water encountered.

Q. Now, then, in coal mining do you occasionally find faults? A. Very frequently.

Q. Wants? A. Yes, sir.

Q. Thinnings? A. Yes, sir.

Q. Do these things have to be taken into consideration when studying the outcrop for the purpose of determining whether or not a workable mine can be developed?

A. Yes, sir, very decidedly.

Q. In making your examination of the surface of this particular coal field did you find any of the physical difficulties or obstacles to the development of the field which you have enumerated? A. Yes, sir.

Q. I wish, Mr. Forrester, that you would take up and give us a general description of this particular coal field along the line or horizon embraced from Kemmerer south to Cumberland, using such notes, maps, sections or other memoranda, which you possess, made by yourself and which you can verify. First, before going into the sections, will you state, generally, how the occurrence of this coal field, with its topographical features, how it lies with reference to the ground in controversy in this action.

823 A. From Kemmerer southward the coal bearing series extend in a general southerly direction as far as Cumberland. Along that line I traveled, examining every prospect or natural exposure of coal and where a section was measureable, where a section was taken. We find the coal at Kemmerer of fair thickness and quality, but between Kemmerer and Diamondville the thickness has decreased, the interstratified bands have increased, and No. 1 and No. 2 Diamondville mines have been opened upon another area of fair thickness of coal. Between No. 2 mine, Diamondville and No. 4 mine, Diamondville, another [are] of unworkable coal was encountered, and at No. 4 the coal was found of a fair thickness and workable. South from No. 4 mine to the south line of section 8, township 19 north, range 116 west, was found wholly unworkable.

Q. And along south from [from] that did you examine it?

A. No, sir. Well, we were south of that in section 17. but did not encounter any prospect holes, and we could only estimate from the surface what it would be, and apparently it had the same characteristics as all of the portion south of No. 4 mine.

Q. Now, then, is that right? You testified that south from No. 4 mine to the south side line of section 8, township 19 north, range 116 west, presented an unworkable coal crop. Is that what you mean?

A. Yes, sir, but I will answer further that I was on section 17, but did not encounter any prospects, but that also was of the same character.

Q. Now, then, before taking up in detail the study of this crop, I want you to give me the topographical features
824 of this particular field and all the vicinity of it.

A. Well, upon the east of this Mammoth Hollow, there is high ground formed by what is termed Oyster Ridge, a series of sandstones and shales, within which the coal bearing zone occurs. Above that comes in the Montana shales, a series of soft, clayey shales easily eroded, and there is to the west of this Oyster Ridge a valley eroded out of these Montana shales, and known as the Mammoth Hollow. To the west are hills within which the Adaville series of coal come in, enclosed in a harder sandstone.

Q. Now, then, what is the character of the covering in this valley, and what is its width?

A. The covering is debris brought down from the high ground on either side, together with the resultant decomposition of the Montana shale beneath, and is covered more or less with grass and sage brush, making fair or good grazing, considered in this arid, intermountain region.

Q. Now, over to the west side of the valley you have other high ground? A. Yes, sir.

Q. Along what particular part of this valley does this coal seam or horizon that you have described extend?

A. Along the east side, and just on the west side of the Oyster Ridge; the east side of the valley and the west side of Oyster Ridge.

Q. The general inclination and dip is toward what?

A. To the west.

Q. Is that the dip of all the surrounding stratification there? A. Yes, sir.

825 Q. Now, then, when you go over to the west side of the valley do you encounter any other coal horizon?

A. Yes, Adaville bed.

Q. What is that? A. It is supposed to be the Laramie.

Q. In the intervening space between these two coal horizons is there any coal at all of any kind disclosed?

A. No, sir.

Q. And as a geologist, from the stratification and deposition, what have you to say as to whether or not any other coal bearing stratification exists in that intermediate territory?

A. I should say there is not any.

Q. Are you familiar in a general way with the situs of the land in controversy in this action? A. Yes,sir.

Q. Whereabouts with reference to the coal vein you have described, the Kemmerer-Cumberland vein, do they lie?

A. To the west.

Q. Whereabouts with reference to the valley?

A. Within the valley.

Q. What do you find on the surface of the land in controversy in this action? A. Grass and sage brush.

Q. Is it a soil, or do you get down to the sedimentary rocks?

A. Oh, yes, there is a soil; you do not get the sedimentary rocks.

Q. Are they exposed at all? A. No, sir.

826 Q. Now, you stated you began at Kemmerer and travelled south along this coal horizon? A. Yes, sir.

Q. Did you make a detailed examination?

A. Yes, sir.

Q. Please give us the result of that examination in detail. I understand, as a matter of fact, that you traversed the country in the opposite direction; you began at the south and went north? A. Yes, sir.

Q. I think for the purposes of the case you might begin at the north and give us the conditions, going south? A. Yes, sir.

(Section produced by witness, marked defendant's exhibit No. 5.)

Q. This drawing has been marked defendant's exhibit No. 5. I will ask you to state what it is.

A. It is the sections of the coal bed and associated strata encountered in the prospect holes between Kemmerer and the south line of section 8, township 19 north, range 116 west.

Q. You may state, if you know, from what the drawings of this exhibit were prepared, what information.

A. From my own notes, taken in the field.

Q. By whom was the section prepared?

A. The actual drafting was done by my own draftsman in my own office in Salt Lake City, and checked over by me after the work was done.

Q. So that you know it is correct, do you?

A. So that I know that it is correct.

827 Mr. Kelley: We offer this section in evidence as defendant's exhibit No.5.

Section admitted in evidence, without objection, and marked defendant's exhibit No. 5.

Q. Very well. You may refer to defendant's exhibit No. 5 in your description. First, I will ask you to explain the markings, what they indicate, that have been used in the preparation of these sections.

A. The stratification is all named upon the legend by the symbols. Parallel broken lines represent clay shale; parallel short broken lines—

Q. Well, I think we can understand, with the explanation that the legend on the margin correctly represents the stratification.

A. Yes, and the legend on the left gives the name of the stratification as represented, while the figures on the right give the measured thickness in feet and inches, while at the bottom of each section is given whether it is a natural exposure or a prospect and the location of it in the field.

Q. Very well, you may proceed.

A. Now, commencing on the north, which is the right hand end of the exhibit, the first section is a natural exposure midway between mines Nos. 1 and 3 of the Kemmerer Coal & Coke Company, and reading from top downward is as follows: clay shale, five feet exposed; bone coal, five inches; sandstone, two inches; bone coal, two inches; coal, one foot, ten inches; bone coal, seven inches; coal, one foot, two inches; bone coal, eight inches; coal, eight feet, eight inches; light clay shale,
828 eight inches; dark shale, eight inches; light colored shale, two feet, three inches; sandstone floor, one foot exposed, and marked on the exhibit section No. 1.

Q. What do you mean by bone coal?

A. It is a stratum of shale containing usually small bands of coal or a large proportion of coal matter, but which is not of commercial value.

Q. Did you take the dip of the vein at this point?

A. No, sir.

Q. Will you give us the legal subdivision, if you can, where you took this first section, No. 1.

A. I cannot give that, because my map did not extend far enough north, and that was the only identification I could make to identify it.

Q. Point out about where it is on the map, complainant's exhibit No. 280.

A. The mine numbers are not along here. If this is No. 1 mine and this No. 3, it would be in there about midway between the two, which would be the southwest quarter of the southeast quarter of section 12, township 21 north, range 116 west.

Section No. 2 is a prospect on the southwest quarter of the southwest quarter of section 4, township 20 north, range 116 west, and it is as follows, reading from the top downwards: clay shale, six feet exposed; bone coal, two inches; coal, six inches; bone coal, three inches; clay shale, five inches; coal, one foot, one inch; clay shale, two feet, four inches; coal, one foot, three inches; bone coal, eight inches; clay shale, one inch; coal, four feet, the lower two feet of which is a bastard coal.

The dip at this point is twenty-three degrees to the west.

829 Q. What do you mean by a bastard coal?

A. Coal crushed by earth movements, dirty and generally granular in structure, very soft and worthless as far as the commercial product is concerned.

Q. Does the coal bed or horizon at this point indicate commercial coal? A. It does not.

Q. What would you say as to the possibility of encountering commercial coal in sinking upon the outcrop at that point?

A. No one would sink upon coal showing as exposed in this prospect.

Q. Why?

A. Because it is not a merchantable coal to commence with; it is not a workable vein to commence with, it is not thick enough for operations. The interstratified bands, too, are too dirty, so that you could not get a clean, marketable coal out of it.

Q. Now, let me ask you, in making your examinations in the sections, did you make them at all points where you found the coal exposed?

A. Everywhere that coal was exposed, whether they were good sections or bad sections, all were taken wherever exposed, either naturally or artificially.

Q. And did you examine any holes along the line of the outcrop in which you made no section?

A. Yes, sir, I examined everything and made notes upon the debris that had been taken out and was lying upon the dumps or alongside of these holes, to estimate, as far as possible, the character of the exposure of that prospect was.

Q. All those holes in which there was no coal were the
830 ones in which you made no sections, as I understand.

A. Some of the holes, of course, were caved in and we could not make a section of them, and we would note the fact, mostly, that the hole was caved and no section measured, and in one or two instances was a hole, although we could get into it, which we could not measure a section of, but we found that there was no coal exposed in it, and in a case of that kind we passed it up, just made a memorandum of that fact.

Q. Very well, with that explanation you may proceed. I would like to have you state, if you can, from your notes, what

the intervening condition was between these sections as you go along.

A. No. 3 is about a mile and a quarter south of No. 2. No. 3 is a prospect on the northeast quarter of the northeast quarter of section 17, township 20 north, range 116 west, and the section as is follows, reading from the top downward: clay shale, two feet exposed; bone coal, four inches; coal, three feet exposed. The rest of the coal is covered by caved material.

Q. That section was incomplete, then?

A. Yes, sir. The next section is a prospect on the southwest quarter of the southeast quarter of section 17, township 20 north, range 116 west. The section is as follows; reading from the top downward: sandstone, four feet exposed; bone coal, seven inches; clay shale, two inches; coal, seven feet, ten inches; clay shale, two inches; argillaceous sandstone, one inch; coal, four feet, nine inches and a clay shale floor W ithin the seven foot, ten bed of coal in this section there are lenses of arenaceous material about in the position as indicated
831 with the lens shaded, the oval lines with dots within the lines.

Q. Is the coal workable from a commercial standpoint at that point?

A. Yes, sir, it is.

Q. Give your notes of the horizon intervening between that and the next.

A. Yes, I am just coming to that in rotation. In the northwest quarter of the southeast quarter of section 20, township 20 north, range 116 west, there are two prospects. At the northerly hole of the two prospects there is but very little coal upon the dump and it does not indicate that a coal vein of any size has been encountered. The southerly hole has more coal on it, and would, in all probability, indicate a vein of about six or seven feet in thickness, while the northerly hole would not indicate a coal exceeding three of four feet in thickness. On the southwest quarter of the southeast quarter of section 20, township 20 north, range 116 west, is a prospect. The section was not measurable, but the coal upon the dump would indicate that it would be a coal which might be workable, unless there might be interstratified bands.

Q. You couldn't tell about that?

A. I couldn't tell about that. Now, between the last two prospects which I have spoken of there are two other prospects holes that show no coal on the dump; the holes are caved so that we could not measure a section, but there were no indications whatever of any coal having been found in these holes, so that all these five holes lie within the west half of the south-

east quarter of section 20, township 20 north, range
832 116 west.

Q. Are these holes in which you say there are no indications of coal along the line of the coal horizon?

A. Yes, sir.

Q. Are they in a position to encounter coal had it been present?

A. Yes, judging from the holes on either side that were close up, and which had exposed coal.

Q. Very well, you may proceed.

A. The next section, marked No. 5, is a prospect on the northeast quarter of the southwest quarter of section 29, township 20 north, range 116 west, about a mile and a half south of the section marked No. 4. This section, reading from the top downward, is as follows: clay shale, three feet; bone coal, eight inches; dirty, shaley coal, one foot; clay shale, one foot, two inches; coal, three feet, eight inches; bone coal, three inches; soft shaly floor. With the three foot, eight inch bed of coal on this section and about twenty inches from the top of this stratum hard, ironstone globules occur frequently, and they are four feet in length and over, and have been noted as much as nine and ten inches in thickness.

Q. What do you say as to whether or not the coal is of commercial quantity and quality at this place?

A. It is of commercial quality, but not in sufficient quantities to make it of workable thickness. There is only three feet, eight inches of coal, not enough to consider in a commercial way in this field especially. I overlooked an old prospect hole which was immediately north, about a quarter of a mile from this last section, No. 5. I will give my notes upon that. It occurs in the southwest quarter of the northeast quarter of section 29, township 20 north, range 116 west. My
833 notes say that it is an old, caved hole, I was unable to measure a section. The amount of coal on the dump showed a very small vein. Section marked No. 6 is a prospect on the northeast quarter of the southwest quarter of section 29, township 20 north, range116 west, and distant about six hundred feet south of the section marked No. 5. This section reads from the top downward as follows; clay shale, two feet, four inches exposed; bone coal, six inches; coal, one foot, one inch; sandstone, nine inches; coal, three feet, eleven inches, with a large lens of calcareous sandstone up to twelve inches thick about the middle of the bed; soft, clay shale, two inches; sandstone floor.

Q. What would you say as to whether or not the coal indicated is of commercial character at this place?

A. It is an unworkable bed.

Q. Mr. Forrester, what have you to say, generally, as to whether or not the outcrop is a fair indication of what may be expected beneath on the bed or seam?

A. It is a fair indication of what may be expected beneath within very limited distances. The dip at this prospect marked No. 6 is twenty-two degrees to the west. No. 7 is a prospect on the southeast quarter of the southwest quarter of section 29, township 20 north, range 116 west, and is located about three hundred feet south of the last named section, namely, No. 6. The section, reading from the top downward, is as follows: Shale roof; coal, four inches; bone coal, three inches; coal nine inches; bone coal, two inches; sandstone, six inches; coal, six feet three inches. Sand stone lens, seven inches, from the top of the three foot six inch, stratum, of coal. These lenses run from four to five inches thick and from two to five feet long. The dip is twenty-four degrees to the
834 west. The coal is an unworkable coal on account of its thickness, being altogether too thin. Within the same quarter section as No. 7 occurs in, there is an incline forty feet down from the surface, which shows no coal whatever.

Q. Is it on the vein or seam where it ought to be?

A. Yes, upon the horizon of coal which we have been following all the way south and shown by the prospect holes, very close to it on either side. Section No. 8 is a prospect on the south boundary of the southeast quarter of the southwest quarter of section 29, township 20 north, range 116 west. The section is as follows, reading from the top downward: Sandstone, one foot, two inches, exposed; clay shale, five feet, eight inches; bone coal, four inches; coal, six inches; bone coal, eight inches; sandstone, seven inches; black shale, two and a half inches; coal, two feet, nine inches; sandstone floor. This section also shows unworkable on account of the thinness.

Q. What is the dip at this point?

A. The dip at this point is thirty-seven degrees to the west.

Q. What do you mean when you say a prospect?

A. An artificial opening made by any person.

Q. Well, are some of these prospects mere surface openings, or do they go down to some little extent?

A. Some of them extend down quite a distance on the vein.

Q. Can you indicate from your notes as you go along the different kinds of prospects?

A. Yes, sir. I am about through with these.

Q. Take the last one, for instance, No. 8.

A. This one I don't give the distance under cover. Sec-
835 tion marked No. 9 is located upon the southeast quarter of the southwest quarter of section 32, township 20

north, range 116 west, and reads from top downward as follows: Sandstone roof, three feet, exposed; coal, dirty, one foot, two inches; bone coal, four inches; clay shale, five inches; coal, two feet, nine inches; soft, black shale floor, six inches, exposed. The dip is thirty degrees to the west. The prospect was ten feet under cover.

Q. How far down on the slope would that be?

A. This was taken at the face.

Q. What was the length of the incline?

A. Ten feet under cover. Now, between those two last sections, Nos. 8 and 9, there is three quarters of a mile. Near the south line of the northeast quarter of the northwest quarter of section 32, township 20 north, range 116 west, are two prospect holes; they expose no coal whatever.

Q. Are they on the horizon?

A. Yes, sir, and on that account we did not measure a section. A thousand feet south of the section marked No. 9, the coal bed is entirely gone, and is replaced by about two feet of brown shale.

Q. Very well, you may proceed, Mr. Forrester.

A. Section marked No. 10 is a prospect on the northeast quarter of the southwest quarter of section 18, township 19 north, range 116 west, and reading from the top downward is as follows: clay shale, four feet, exposed; sandstone, one foot, six inches; clay shale, two feet, nine inches; coal, nine inches; clay shale, three inches; coal, one foot, six inches; clay shale, three inches; coal, one foot, eight inches; clay shale, two inches; coal, three feet, six inches; soft, clay shale floor.

836 Of the three foot, six inch stratum of coal the bottom one foot is soft and shaley.

Q. What is the dip?

A. I haven't got the dip at this point.

Q. Is it a commercial proposition at that point?

A. Well, this particular place here would like coal that might be worked; it would be very dirty, but it might be worked; however, on either side of it, the coal closes, but the coal is absolutely worthless, and it is just simply a small, well defined lens there; it indicates nothing further than just a little thickening of the coal at that particular point. Now, between sections marked 9 and 10 on the coal horizon there are a few places where a little coal bloom is exposed, but at no point does it show a bed exceeding three feet. Section marked No. 11 is a prospect on the northeast quarter of the southwest quarter of section 8, township 19 north, range 116 west, and reading from the top downward is as follows: Sandstone, six feet, exposed; coal, dirty, six inches; soft, black shale, one foot, one inch; coal, bastard, one foot, two and a

half inches; soft, black shale, three inches; coal, one foot, seven inches. The top half of this one foot, seven inch stratum is slatey and dirty; soft, clay shale floor.

Q. Have you got the dip measured there?

A. Dip, nineteen degrees to the west.

Q. Is the coal commercial at that point?

A. No, sir, neither economically nor commercially worth anything. The section was measured fifty feet under cover, and all the interstratified bands in the coal bed increase toward the dip.

Q. That is, they get wider?

837 A. Yes, sir. Section marked No. 12 is a prospect on the southeast quarter of the southwest quarter of section 8, township 19 north, range 116 west. The section measured from the top downward, reads, as follows: shale roof, nine inches, exposed; coal, seven inches; soft, clay shale, one foot, seven inches; coal, one foot, two inches; bone coal, five inches; coal, three feet, three inches; hard, shale floor; dip, seventeen degrees to the west.

Q. Is the coal commercial? A. No, sir.

Q. Now, does that complete the sections which you made of the coal horizon?

A. That completes the sections made upon the surface holes as shown along the line of that horizon.

Q. Now, then, are you familiar with the outcrop of the places where mines have actually been located? A. Yes, sir.

Q. Does the coal horizon show commercially, valuable coal at those places? A. At the places where the mines are opened?

Q. Yes, the producing mines. A. Yes, sir.

Q. Those have been taken up or will be taken up as separate and aside from these sections, away from the producing mines?

A. Yes, sir.

Q. What are the mines that have been opened up on this horizon, beginning with Kemmerer and going south to Cumberland.

A. The Kemmerer has, I believe, Nos. 1, 2 and 3; the Diamond Coal & Coke Company have Nos. 1, 2, 3 and 4; the

838 Cumberland has 1, 2 and 3, but as to the Kemmerer, I don't know the order in which they run from north to south, or the rotation of their numbers, nor all of the Cumberland, but the Diamond Coal & Coke Company mines from north to south are No. 1, No. 3, No. 2 and No. 4.

Q. Can you tell me approximately the distance between these mines on the horizon, beginning at the northerly one and running south?

A. There is about two miles between each of the Kemmerer mines, then between the Kemmerer—I cannot tell the relative position, but it would be about two and a half miles or there-

abouts between the Kemmerer and Diamondville No. 1 mine, and about a mile and a half between No. 1 mine and No. 2 mine at Diamondville, about two and a half miles between No. 2 mine at Diamondville and No. 4 mine at Diamondville, and about six miles betwee nthe No. 4 Dimondville mine and the Cumberland mine.

Q. Is there a No. 5 Diamondville; do you know where that is?

A. There is no No. 5; there have been several attempts made to get a No. 5 mine, but in no case has it been successful in getting workable coal.

Q. But do you know where they started No. 5 mine?

A. Yes, sir.

Q. Where was that?

A. In the southwest quarter of the southwest quarter of section 4, township 19.

Q. Township 20, I guess you mean.

A. I will have to look at the other plans. Township 20 north, it should be, range 116 west.

839 Q. Has that mine been abandoned, do you know?

A. Yes, sir.

Q. Now, then, from your study and examination of the outcrop, can you tell us where, if at any place outside of the mines that you have mentioned, you can go from the northerly boundary down to where you stopped, at the south side line of section 8, and locate a workable, coal mine on this coal horizon.

A. It is an impossibility. There is not a place on which a mine can be opened with any hope of success.

Q. Would you advise a client to go on the coal outcrop or horizon line between the points mentioned at any place, other than those which have actually been developed into workable mines, and extend money or make an investment for the purpose of developing a coal mine?

A. I would not advise it and I would not spend any money trying to find coal down at any of these places.

Q. Now, then, did you make any examination of the underground conditions which maintain in that locality?

A. Yes, sir.

Q. In a general way, first, you may briefly tell us where you made these examinations.

A. I went through No. 1 Diamondville mine, No. 2 Diamondville mine and No. 4 Diamondville mine.

Q. Did the examination which you made of these mines confirm or disprove the conclusion which you had reached from your examination of the surface?

A. Well, they confirmed my conclusion as to the unworkable features of the remaining portion of the country in which mines might be opened, proving that even in places where we

had good outcrops the coal has thinned out with depth to such an extent that it is unworkable.

840 Q. I will ask you to state whether or not the underground conditions which you discovered in No. 1, No. 2 and No. 4 Diamondville may be taken as fairly representative of what might be found at other places along the coal horizon?

A. Yes, sir, they are.

Q. Is there any other way in which you can determine what may be encounterd, except where, from your examination of the horizon, itself, it indicates a valuable mine or an unworkable part of the measure?

A. The only method would be by the doamond drill or sinking shafts; sinking shafts or slopes on the coal.

Q. Of course that was not practicable to you in your investigation, was it? A. No, sir.

Q. Very well; you may take up No. 1 Diamondville mine. Where is this mine located specifically with reference to legal subdivisions?

A. The mouth of the mine is located in the northeast quarter of the northwest quarter of section 25, township 21 north, range 116 west, and the main slope runs northwesterly, and at a point about the section line between sections 23 and 24 of the same township and range the main slope turns abruptly to the southwest nearly at right angles.

Q. Do you know anything about the reasons why that slope was changed or turned in direction? A. Yes, sir.

Q. Why?

A. Because the coal was found inworkable in the face of the main slope, and they came back and turned the slope to

841 the southwest, endeavoring to get away from the thin coal encountered with the straight slope.

Q. So, then, what have you to say as to whether mine No. 1 presents any demonstration as to whether or not these coal measures extend down indefinitely into the earth?

A. It is a very strong proof that they do not extend down in depth from the surface, even when you have good coal on the surface.

Q. Well, what was the nature of the examination which you made in mine No. 1 for the purpose of observing the general condition of this coal seam upon which the slope was sunk?

A. We went down the main slope as far as the 10th south.

Q. How far is that?

A. Roughly speaking, half a mile—and we went the entire length of the 2nd north level. We also went in the 10th south level approximately half a mile and measured sections of the coal bed at different points.

Q. First state in a general way what you found, before going into your sections.

A. Well, we found great variability in the character of the coal and the character of the roof and the general working conditions.

Q. Very well. On the north side of mine No. 1, what have you to say as to whether or not the faces of the entries are in workable coal?

A. I should say they are not inworkable coal.

Q. Have they been abandoned?

A. They are abandoned.

Q. Has the main slope been abandoned?

A. Yes, sir.

842 Q. Going south what do you find?

A. Well, we couldn't get below the 10th south on account of water.

Q. You may show us the sections you made in mine No. 1, illustrating what you have said. What is it that you now hold in your hand?

A. It is the sections of the coal seam taken in the 2nd north level of No. 1 Diamond Coal & Coke Company's mines, Unita County, Wyoming, measured by Forrester, Talmage & Hopkins, April 7th, 1908.

Q. Do you know that this section is correct?

A. Yes, sir.

Section marked defendnat's exhibit No. 6.

Q. Now, then, Mr. Forrester, you were about, I think, to begin a description of your section and measurements taken in No. 1 mine. Tell us first what was the general character of the outcrop where No. 1 was sunk?

A. Excellent.

Q. For what distance along the outcrop was it good?

A. From about the center of section 24, township 21 north, range 116 west, to about the south boundary of that township in the southwest quarter of 36.

Q. Going down what did you find; going down on the coal, what did you find?

A. Well, the coal was good until we were pretty well down toward the bottom of the entry, when it got interstratified bands in it in such a way as to make it a dirty coal, and thinning out. We did not get down the part of the slope turned to the southwest, on account of water.

843 Q. Is it filled with water?

A. Filled with water.

Q. Then, it has been abandoned?

A. Well, as far as I know it is abandoned.

Q. Well, did you examine the country developed northerly of the entry?

A. Northerly of the slope?

Q. Northerly of the slope, yes.

A. Yes, we went the entire length of the 2nd north level.

Q. And what did you find?

A. We found at the intersection of the 2nd north level with the north return airway, and measured the following section.

Q. Are those measurements illustrated upon the section which I have in my hand? A. Yes, sir.

Mr. Kelley: I offer in evidence the section marked defendants exhibit No. 6.

Defendnat's exhibit No. 6 admitted without objection.

Q. Now, describe those sections and tell us, if you can, where the sections were taken with reference to the slopes, how far north of the slope it was taken; do you understand? Did you measure it?

A. We only took—we had a larger map on which the rooms were located; I believe the map was on a scale of one inch equals two hundred feet. We located ourselves by the number of the rooms.

Q. Well, I can connect it up later; just go ahead [in] indicate the place where the sections were taken.

844 A. The section which I have marked with a red pencil No. 1 upon defendant's exhibit No. 6 is a section measured upon the 2nd north level at the north return airway, and reading from the top downward is as follows: shale, six inches, exposed; coal, six feet, eleven inches; bone coal, two and a half inches; coal, two and a half inches; bone coal, two inches; coal, one foot, three inches; bone coal, three inches; coal, eight inches; bone coal, three inches; coal, two feet, four inches, exposed. Dip, thirteen degrees to the west.

Q. Where was your next section taken?

A. The section which I have marked No. 2 with a red crayon on defendant's exhibit 6 is a section measured at the crosscut between rooms 19 and 20 upon the 2nd north level of No. 1 mine, Diamond Coal & Coke Company.

Q. Now, are you getting further away from the slope?

A. Farther away from the slope and toward the north. This section read from the top downward is as follows: shale roof, six inches; shaley coal, six inches; coal, one foot, seven inches; bone coal, five inches; the bone coal is arenaceous; coal, two feet, seven inches; bone coal, two and a half inches; coal, one foot, eight inches; arenaceous shale, three and a half inches; coal, three and a half inches; which coal runs out

eighteen inches in length along the entry; bone coal, three inches; coal, one foot, eleven inches; bone coal, six and a half inches; coal, four feet, three inches; shale floor.

Q. How does this section No. 2 compare commercially with section No. 1?

A. It is a little dirtier, but still a good, working coal.

Q. Well, I note that in your first section, No. 1, you had a clear section of coal of six feet, eleven inches?

845 A. Yes, sir.

Q. In going north has this section become interstratified?

A. Yes, and it is split up at a distance of one foot, seven inches, from the roof by a band of arenaceous bone coal, and at a distance of—

Q. Well, never mind; just generally; the section shows the manner in which it is made up? A. Yes, sir.

Q. All right, now proceed.

A. And another bone band of two and a half inches from the bone coal beneath the six feet, eleven inches, of No. 1 section has become arenaceous shale three and a half inches in thickness. Now, the section marked No. 3 in red crayon on defendant's exhibit No. 6 was measured at a crosscut to room 39 upon the 2nd north level of No. 1 Diamondville mine, and reading from the top downward, is as follows: shale roof; coal, two feet, two inches, which becomes shaley at the top; an arenaceous band of coal seven inches; coal, four feet; shale, one foot, two inches; coal, one foot, nine inches; shale, one foot; coal, nine inches; coal, three feet, two inches; the bottom twelve inches is very soft and shaley. Dip, seventeen degrees to the west. At this point the floor of the mine passes from the bottom of the four foot, three inch, stratum of the section marked No. 2, to the bottom of the four foot coal stratum in this No. 3 section. That is, in the operation of the mine, all below the four foot stratum in this No. 3 section has been abandoned. The top arenaceous bone coal in section No. 2 has now increased to seven inches in thickness. Section marked No. 4 with red crayon was measured sixty feet north of room 51 upon the 2nd north level of No. 1 Diamondville mine.

846 This section, reading from the top downward, is as follows: shale roof, two feet, one inch, exposed; coal, one foot, eight inches, dirty and shaley; shaley bone coal, four inches; coal, three feet, eight inches; shale floor, nine inches, exposed. Dip, sixteen degrees to the west. At the mouth of 49 room a following, that is, a shale or other soft material that cannot be kept up by propping, and which comes down in the operation of the coal mine—this following is one foot, two inches to two feet in thickness, and becomes a very great

feature. This following comes down in the entry, in as far as the face of that entry, showing that even in narrow work it cannot be kept up. Furthermore, the top band, three feet, eight inches in thickness, of coal, is shaley and dirty, leaving only three feet, eight inches of a commercial coal, which is too thin to work economically.

Q. Can the mine any longer be worked northerly in that coal? A. No, sir.

Q. This is on the 2nd north level? A. Yes, sir.

Q. Are you familiar with the outcrop of the coal easterly at right angles from this point at the surface?

A. Yes, sir.

Q. What kind of outcrop is it?

A. First class, excellent coal.

Q. Was there anything on that outcrop that would indicate that in that comparatively short distance the coal would become worthless?

A. Not in that particular position, but beyond that, in what we call Jenkins Draw, I had a prospect pit made along about 1894 or 1895 when I was opening up the property, and found that the coal was getting split up by interstratified lands.

847 Q. But at this particular point on the outcrop.

A. At this particular point on the outcrop it was good.

Q. Do you agree with Mr. Veatch in the statement that from the outcrop you can determine absolutely whether or not coal will extend down indefinitely into the earth?

A. Oh, no, you cannot do that; that is a physical impossibility.

Q. Have you any more sections of your No. 1 mine?

A. Yes, I have sections of the coal seam taken in the main slope of No. 1 mine, Diamond Coal & Coke Company, Uinta, Wyoming, measured by Forrester, Talmage and Hopkins, April 7th, 1908, scale, one inch equals two feet.

Q. Do you know that these correctly represent what they purport to show? A. Yes, sir.

Mr. Kelley: We offer this sheet of sections in evidence and ask that it be marked defendant's exhibit No. 7.

Sheet admitted in evidence, without objection, marked defendant's exhibit No. 7.

Q. Very well, Mr. Forrester, you may proceed.

A. Section No. 1, marked with red crayon upon defendant's exhibit No. 7 was measured on the 2nd north level at the north return airway of No. 1 Diamondville mine and is the same section as given on defendant's exhibit No. 6 and marked No. 1; reading from the top downward it is as follows: shale, six

inches, exposed; coal, six feet, eleven inches; bone coal, two and a half inches; coal, two and a half inches; bone coal, two inches; coal, one foot, three inches; bone coal, three
848 inches; coal, eight inches; bone coal, three inches; coal, two feet, four inches, exposed. Dip, thirteen degrees to the west.

Q. Why do you say two feet, four inches, exposed at the bottom?

A. Because the floor of the coal is not exposed, and there is still coal below that, how much I dont know.

Q. Why wasn't it mined?

A. It has been mined, but in laying the tracks, on account of the steep pitch they filled in so as to bring the track level, and they may grade the tracks if there is a little swamp in the course of the entry after they have gone through it, they will fill it up to a general level to facilitate the economic movement of the coal by mule or other haulage.

Section No. 2, marked with red crayon on defendant's exhibit No. 7 was measured on the main slope opposite the 7th south, back entry of No. 1 Diamondville mine, and reads from the roof downward as follows: Shale roof, three feet, exposed; shaley coal, four inches; coal, one foot, two inches; arenaceous shale, three inches; coal, three feet; bone coal, one and a half inches; coal, one foot, two inches; shaley, bone coal, eight inches; coal, one foot, ten inches; bone coal, three inches; coal, dirty, especially in the six inches in the middle of the bench, four feet, six inches.

Q. What have you to say as to whether or not that that coal is commercial at this point?

A. Yes, it is commercial, workable coal, but there has come in the six foot, eleven inch bench of No. 1 section, two strata, one of arenaceous shale of three inches, and one of bone coal of one and a half inches, and the shaley, bone coal has replaced that band of bone coal two and a half inches and coal two and a half inches, bone coal, one and a half
849 inches on the other section. Section marked No. 3 on defendant's exhibit No. 7 was measured on the main slope opposite the 10th south of No. 1 Diamondville mine, and the section reads from the top downward as follows: shale roof, shaley coal, six inches; arenaceous bone coal, three inches; dirty coal, three inches; coal, bastard, four feet, seven inches; shale, one foot; bone coal, nine inches; coal, two feet; bone coal, four inches; shale, ten inches; coal, five feet, four inches; shale, nine inches; argillaceous sandstone, six inches, exposed. Dip, fourteen degrees to the west.

Q. Is the coal workable at this point commercially?

A. The coal, I should say, would not be workable at this point, because, although we have a four foot, seven inch bed on top, it is all what we would term bastard coal. Between that four foot, seven inch and the five foot, four inch bands of coal, next to the floor of the bed or seam, we have the following section separating it, reading from the top downward: shale, one foot; bone coal, nine inches; coal, two feet, bone coal, four inches and shale, ten inches; and these interstratified bands will all come down in the operation of the five foot bed and make the coal too dirty; in fact, the five foot, two inches of coal in itself would not be workable in this district.

Q. Will you define what you mean by bastard coal for the counsel.

A. It is a term used by the miners in this field for a soft, granular, crushed, dirty coal, which is worthless as a commercial product.

850 By Mr. Birch:

Q. Is it because you say it is crushed and intermingled with other material from above or below—is that why they call it bastard?

A. It is because it is crushed into fine material. The interstratified bands of bone and that sort of thing are all crushed through it, making the mixture which we cannot work, and it is soft, anyway, and it all goes to slack, and it is absolutely worthless as a commercial product.

By Mr. Kelley:

Q. Now, according to the sections that you have selected, you have passed within the distance given at which these sections were taken from commercial, valuable coal to that which cannot be worked economically? A. Yes, sir.

Q. Do you know whether or not this slope has been abandoned, where your section No. 3 was taken?

A. Yes, sir, it is abandoned just below that. They tried to drive forward to see if they could not get into better coal, but it continued to get worse.

Q. Now, what other sections did you take in No. 1 mine?

A. No other sections.

Whereupon further hearing was continued until April 21st, 1908, 9-30 A. M.

851 Tuesday, April 21st, 1908, 9-30 A. M.

Hearing resumed pursuant to adjournment.

Robert Forrester, direct examination resumed:

By Mr. Kelley:

Q. Mr. Forrester, you had completed the description of the sections of No. 1 mine last night, I believe?

A. Yes, sir.

Q. Did you make any examination of the underground workings in No. 2 mine? A. Yes, sir.

Q. Did the observations which you made in No. 2 mine confirm your opinion as to the irregularities of this coal bed?

A. They did.

Q. Will you tell us what the examination of No. 2 mine consisted of?

A. We went in to No. 2 mine, down the main slope to the 4th south entry, and along the 4th south entry to the face.

Q. What is the character of the outcrop or horizon at No. 2 slope, where it starts down on the coal bed?

A. It is excellent coal; all holes on the outcrop in that vicinity show good coal.

Q. How far down on the slope is the 4th south entry?

A. Approximately eighteen hundred feet.

Q. Where did you go on the 4th south entry?

A. We went throughout the entire length of that entry and into the face of the entry.

Q. About where with reference to the surface is the face
852 of that entry?

A. About sixteen hundred feet from the crop.

Q. That is, measured down the slope?

A. Measured at practically right angles—or parallel to the dip; parallel to the dip, measuring down the slope and then along the entry, it would be eighteen hundred feet down the slope and approximately twenty-five hundred feet along the entry. That point is approximately sixteen hundred feet from the outcrop, measured along the line of the dip.

Q. Well, what are the characteristic features of the coal bed as disclosed in this entry or slope as you went southerly?

A. It was good coal at the slope, and continued to get poorer as we approached the end of the entry, so that by the time we got to the face of that entry we had gone into poor coal. I have that shown in a number of sections which I have taken along that level.

Q. Before going to the sections I will ask you to state if this print is a correct representation of the plan of the mine?

A. As far as we have been able to make comparisons it checks out at every point at which we have been able to check it up.

[A.] I notice that at the southerly extremity of the entry that you have mentioned, the rooms have not been turned off. Is there any reason for that?

A. Yes. Poor quality of coal again, thinning off, and other reasons of that kind which makes the coal unworkable.

Q. To what extent is that shown along this plan map from the most southerly room to the extremity of the entry?

A. Practically one thousand feet.

Q. Now, you said you had taken some sections. Have you indicated on this plan map, marked exhibit No. 8, the
853 places where these sections were taken in the mine?

A. Yes, sir; so designated and marked by red crayon crosses.

Q. Will you refer now to the sections which show the conditions existing in the coal bed and explain them, if you please, along that entry. In order to identify this group of sections, I will ask you what this is.

A. This shows sections of the coal seam taken in the 4th south entry of No. 2 mine, Diamond Coal & Coke Company, Uinta County, Wyoming, measured by Forrester, Talmage and Hoplins, April 8th, 1908, scale, one inch equals two feet.

Q. Do you know that the representation of this group of sections are correctly shown?

A. Yes, they are correctly shown.

Mr. Kelley: We will offer these sections in evidence and ask to have the sheet marked as an exhibit.

Sheet of sections admitted in evidence, without objection, marked defendant's exhibit No. 9.

Q. As shown by this exhibit No. 9, Mr. Forrester, you may describe the sections which you took.

A. Section marked A. upon defendant's exhibit No. 9 is a section measured upon the 4th south entry two hundred feet south of the main slope, and reads from the roof downward as follows: shale roof, three feet, exposed; coal, three feet, four inches; bone coal, two inches; coal, seven inches; bone coal, one and a half inches; coal, six inches; bone coal, three inches; coal, one foot, eleven inches; bone coal, one and a half inches; coal, three feet, nine inches; hard, shale floor; dip, seventeen degrees to the west.

854 Q. What is the character of the coal bed as indicated by the section at that point?

A. Good; first class coal.

Q. Very well, you may proceed.

A. Section marked B. upon defendant's exhibit No. 9, was measured upon the 4th south entry of No. 2 mine at room No. 11, and reading from the roof downward is as follows;

Q. Now, can you tell me approximately how far south of the slope room No. 11 is?

A. About eight hundred feet south of the main slope. Shale roof, two feet, one inch, exposed; coal, two feet, six inches; bone coal, one and a half inches; coal, one foot, one inch; bone coal, one and a half inches; coal, two feet, seven inches; bone coal, two inches; coal, four feet, seven inches; hard, shale floor. The coal at this section is also good, workable coal.

Q. Proceed with the next section.

A. Section marked C. upon defendant's exhibit No. 9 was measured on the 4th south entry of No. 2 Diamondville mine at room No. 25, approximately sixteen hundred and fifty feet south of the main slope, and reading from the roof downward it is as follows: sandstone roof, white shale, two feet; black shale, two feet; coal, seven inches; bastard; bone coal, four inches; coal, two feet, six inches; bastard; shale, three inches; coal, two feet, six inches; bastard; bone coal, five inches; coal, three feet, good and hard; shale floor.

Q. What is the character of the coal of this section?

A. Poor.

Q. Is it workable?

A. No, I should not say so; I should not say it would be workable; it is too much crushed and too much a bastard
855 coal there to be merchantable coal, so I should say it was unworkable. There is only about three feet at the bottom that is really good coal. All the other I should term worthless coal. The section marked D. upon defendant's exhibit No. 9 was measured upon the 4th south entry of No. 2 Diamondville mine and at a point upon that entry one hundred and twenty feet south of room 29, which is approximately two thousand feet south of the slope, and reading from the roof downward, is as follows: Shale roof; shale, one foot, six inches, which forms a following; coal, two feet, six inches; shale, six inches; coal, two feet, seven inches; shale floor, three inches, exposed. Dip, eighteen degrees to the west.

Q. What is the character of the coal disclosed at this section?

A. The coal is good, but it is too thin to work, and furthermore it has a six inch band of shale near the middle and one foot, six inches of shale as a following, so that even if it had been workable thickness, it is unworkable as a commercial proposition.

Q. What do you mean by a following?

A. A following is a stratum immediately overlying the coal bed which cannot be kept up in the operation of the mine by propping; it will come down in the narrow part as well as in the room work and mix in the coal, rendering it so dirty that there is no chance of shipping the coal without very great expense.

Q. Is that what is commonly called by coal miners a clod?

A. Yes, sir. Section marked E, upon defendant's exhibit No. 9 was measured upon the 4th south entry of the Diamond Coal Company's mine, No. 2, and measured at a point
856 upon that entry fifty feet north of the last slant, and approximately twenty-two hundred feet south of the main slope, and reading from the roof downward, is as follows: shale roof; shale, one foot, three inches, which forms a following; coal, two feet, five inches, getting hard; shale, two inches; bone coal, eleven inches; shale, three inches; these last three strata increase in ten feet to a total thickness of two feet; coal, three feet, eight inches, bastard; shale floor, one foot, exposed.

Q. What is the character of the bed at this point, Mr. Forrester?

A. It is split up into two strata of coal, the top one of which is two feet, five inches in thickness and is good, hard coal; the bottom bed, three feet, eight inches in thickness, is worthless coal, thereby making the entire section absolutely worthless and entirely unworkable.

Q. As a matter of fact, at the section all the coal of commercial quality that you have got is this two feet, five inches?

A. Two feet, five inches in thickness, yes. Section marked F. upon defendant's exhibit No. 9, was measured at the face of the 4th south entry of No. 2 mine, Diamond Coal & Coke Company and approximately twenty-five hundred feet south of the main slope, and reading from the roof downward, is as follows: shale roof; coal, one foot, nine inches; bone coal, two inches; coal, eleven inches; soft, black shale, three inches; argillaceous sandstone, two feet; bone coal, three inches; coal, one foot, eight inches; shale, four inches; coal, two feet, nine inches; shale floor.

Q. What is the character of the bed at that place?

A. The coal is good, hard coal, but owing to the following of the roof shale and the interstratified bands, and
857 especially by the split in the middle of soft, black shale, argillaceous sandstone and the bone coal, together with the four inch band of shale splitting the lower stratum, makes the bed absolutely worthless.

Q. Has mining been suspended upon the vein at that point, do you know? A. It has.

Q. And the prosecution of further work southerly has been abandoned? A. Yes, sir.

Q. I will ask you if these sections that you have taken of the coal beds along that entry are representative of the general conditions found? A. Yes, sir.

Q. Or were they selected?

A. No, they were not selected.

Q. Very well. From this entry where did you go in the mine?

A. We passed through the last crosscut in that entry into what we term the back 4th south entry; returning toward this slope from the northerly a distance of about three hundred feet, and came to the last room on the 5th south entry of this mine, we went down that room to the 5th south entry.

Q. That would be room 36, would it not?

A. Yes, that would be room 36.

Q. Now, does this red line upon this mean to indicate your line of travel? A. Yes, sir.

Q. I notice as you came down the slope, beginning with the 3rd entry on the south, that each succeeding entry
858 in depth, the rooms do not extend as far southerly as the one above? A. Yes, sir.

Q. What is the reason for that?

A. Because they have run into the unmarketable coal within shorter distances.

Q. Then, would you say that the diminishment in the coal beds which renders it an unworkable proposition, approaches the main slope as it gains in descent or goes down?

A. Yes, sir.

Q. Did you make some sections showing the coal at other places along the line of travel? A. Yes, sir.

Q. Will you give us those sections, please, and a description of them.

A. We will take the 5th south entry next.

Q. To identify this in the record I will ask you what is the paper you hold in your hand.

A. Shown upon this sheet are sections of the coal field taken in the 5th south entry of No. 2 mine, Diamond Coal & Coke Company, Uinta County, Wyoming, measured by Forrester, Tlamage and Hopkins, April 8th, 1908, scale, one inch equals two feet.

Q. Does this plat that you have referred to correctly show the sections of the bed at the point shown? A. Yes, sir.

Mr. Kelley: We offer this plat in evidence and ask to have it marked as defendant's exhibit.

Plat admitted in evidence, without objection, marked defendant's exhibit No. 10.

Q. Referring to defendant's exhibit No. 10 you may
859 state what is shown by the various sections.

A. Section marked G. upon defendant's exhibit No. 10 is a section measured at the face of the 5th south entry of No. 2 mine of the Diamond Coal & Coke Company and approximately twenty-three hundred feet south of the main slope.

Q. Is that the end of the working on that entry?

A. Yes, approximately. Reading from the roof downward, it is as follows: sandstone roof; shale, two inches; coal, ten inches; bone coal, two inches; coal, one foot, three inches; soft shale, three inches; argillaceous sandstone, two feet, one inch; soft shale, seven inches; coal, two feet, four inches; shale, five inches; coal, two feet, seven inches; hard, shale floor.

Q. What is the character of the coal disclosed?

A. The coal is good, but it is so split up with interstratified bands that it is unworkable.

Q. When you say good, you refer to the quality of the coal?

A. The quality of the coal is good.

Q. Not to the quantity.

A. Not to the quantity. At the mouth of room 30, the 6th upon this level, I measured two small sections of the interstratified bands just as an exhibit showing the increase within a short distance. The two sections were measured, one upon the south side of the neck of the room, the other on the north side of the neck of the room; they are within ten feet of each other and within one hundred feet of the point where the section marked G. upon defendant's exhibit No. 10 was measured.

Q. The increase of what?

A. The increase of the stratified band, which, from the north side it is black shale within ten feet, there is ten
860 inches of that shale, has run into argillaceous sandstone, and at the face where section G. was measured the sandstone has increased to a thickness of two feet, one inch. Upon that band we have seven inches of bone coal on the north section, which has turned to two inches of shale on the south section and three inches of soft shale at the point where section G. was measured. On the bottom on the north side it is all shale; on the south side there is five inches of shale below the argillaceous sandstone, and at the point where section G. was measured there was seven inches of soft shale; showing that that band is increasing very rapidly.

Q. As you go toward the south.

Q. What is the dip of the vein at this point?

A. Eighteen degrees to the west.

Q. Is that all of the sections that you took on the 5th south entry? A. Yes, sir.

Q. Why?

A. Because we could not get through that entry on account of caving, which exhibits the soft character of the roof, and the great trouble one has in keeping the mine open for operation.

Q. Then I understand that the entry is inaccessible northerly of about room 30? A. Yes, sir.

Q. And has been abandoned?

A. It has been accessible from room 36 back; we could not get through that level, so that we had to go into the back entry, from which no rooms had been opened, and which were not so badly caved, although it was badly caved, to climb over the caves. In getting down to the 6th we could not get back
861 on that level to the main slope, and even then we had to go back on the 5th south and go down to room 29 to the 6th south; we could not even get out that entry to any room broken through, and we had to retrace our steps, climbing over these caves and everything upon a steep slope.

Q. Did you go down to the 6th south? A. Yes, sir.

Q. Did you make any sections there? A. Yes, sir.

Q. Whereabouts?

A. It is about one hundred feet from the face; it was as close as we could get to it on account of the cave.

Q. Does this paper which I hand you correctly represent that section?

A. Yes, it is marked section of coal seam taken in 6th south entry of No. 2 mine, Diamond Coal & Coke Company, Uinta County, Wyoming, measured by Forrester, Talmage and Hopkins, April 8th, 1908, scale, one inch equals two feet.

Mr. Kelley: We offer this section in evidence.

Section admitted in evidence, without objection, marked defendant's exhibit No. 11.

Q. You may describe this section taken on the 6th south entry, Mr. Forrester.

A. This section was measured sixty feet south of room No. 30 of the 6th south entry of No. 2 mine of the Diamond Coal & Coke Company, which point is approximately twenty-one hundred feet south of the main slope, and reading from the roof downward is as follows: sandstone roof; shale, three
862 inches; coal, two feet, six inches; shale, three inches; argillaceous sandstone, one foot, eight inches; shale, six inches; argillaceous sandstone, one foot, nine inches; soft, black shale, one foot; coal, two feet, exposed.

Q. What have you to say as to the commercial character of the coal at that point?

A. Oh, it is absolutely unworkable.

Q. Let me ask you, you began your descriptions with the 4th south entry? A. Yes, sir.

Q. After leaving the main slope. Did you go into any of the entries above that? A. No, sir.

Q. Why? A. We could not get in there.

Q. Have they been caved and abandoned?

A. Abandoned and caved.

Q. All right. From the 6th south, you say, you retraced your steps? A. To the main slope.

Q. And what was the line of travel from that?

A. Thence down the main slope to the 8th south entry, and in the 8th south entry to the face.

Q. The 8th south entry presents the same condition of having stopped its face more northerly than the entry above it, does it not? A. Yes, sir.

Q. Due to the same cause? A. Yes, sir.

Q. Very well, sir. Will you tell us what you found in that entry. What is this paper?

863 A. This is sections of the coal seam taken in the 8th south entry of No. 2 mine, Diamond Coal & Coke Company, Unita County, Wyoming, measured by Forrester, Talmage and Hopkins, April 8th, 1908, scale, one inch equals two feet.

Mr. Kelley: We offer this sheet of sections in evidence.

Admitted without objection, marked defendant's exhibit No. 12.

Q. How long have these workings that you have testified are abandoned, been abandoned?

A. Well, the Lord knows; I don't.

Q. Was it of recent date, from the conditions, can you determine?

A. You cannot tell anything about that from the caving or that sort of thing; you can't tell how long they have been abandoned.

Q. Referring to defendant's exhibit No. 12, describe the sections shown there.

A. It may be well to give a note which I made in going down the main slope.

Q. Yes.

A. I noticed after leaving the 4th south entry when we got down to the 7th south level that we had twelve feet of a clay shale immediately on top of the coal. Between the 7th and 8th levels, another exposure showed as much shale upon the top, showing that the shales were coming in [—]top of the coal, so that it would render even a good vein a very hard matter to operate. Commencing upon the sections, section marked

864 H. upon defendant's exhibit No. 12 was measured at room No. 1 on the 8th south entry of No. 2 mine of the Diamond Coal & Coke Company and approximately two hundred feet south of the main slope.

Q. I notice that your No. 11 stops on the 6th south, and you came from there to the 8th south; why didn't you go into the 7th south?

A. Because we had been in three levels here, and the map showed a long line of entries from which no rooms had been turned off and we did not feel it necessary to go into every level. We were in the 6th south and the 8th south, and in the first place it would not have been necessary to go into them when we were taking a general line; in the second place—

Q. I just wanted to know if there was any reason why you avoided it?

A. Well, simply to save trouble and to get a general idea of the characteristics of the field without spending too much time to do so. Section marked H., as has been described in its locality, reading from the roof downward, is as follows: shale roof, six inches; coal, two feet, three inches; shale, four inches; coal, two feet, two inches; shale, two inches; coal, two feet, nine inches; shale floor. This floor is showing good in quality, but a great decrease in thickness, apparently, indicating that the coal is thinning toward the dip in the main slope.

Q. How far is that from the mouth of the main slope down to this entry?

A. Thirty-three hundred feet. Section marked J. upon defendant's exhibit No. 12 was measured upon the 8th south entry of No. 2 Diamond Coal Company's mines and at a point at room No. 12 upon this 8th south entry, and reading
865 from the roof downward, is as follows: shale roof, six inches; bastard coal, one foot, nine inches; shale, six inches; coal, two feet, six inches; bone coal, two and a half inches; coal, three feet, three inches; shale floor, one foot, exposed; dip, eighteen degrees to the west. The top band of one foot, nine inches, is worthless coal; the two lower strata, two feet, six inches and three feet, three inches are good in quality, but is getting too thin to make profitable mining. Section marked K. upon defendant's exhibit No. 12, was measured at room No. 15 at the 8th south entry of No. 2 mine of the Diamond Coal Company which is located, approximately, eight hundred feet south of the main slope, and reading from the roof downward, is as follows: shale roof; coal, two feet, three inches; bony shale, one foot; coal, two feet, three inches; bone coal, seven inches; coal, two feet, five inches; shale floor. All the strata of coal in this section are good in quality, and it shows the variability of this, that it is bastard coal, in that in section G. the top stratum of coal is all bastard coal, whereas in section K. it is all coal of good quality. However, all the coal on section K. put together is only six feet, eleven inches, and would not be a very large vein to operate, but when it is split up with a one foot of bony shale and a seven inch band, splitting it into two bands it renders it a very poor mining proposition.

Section marked L. upon defendant's exhibit No. 12 was measured at room No. 20 upon the 8th south entry of the Diamond Coal & Coke Company's No. 2 mine. This point is located approximately a thousand feet south of the main slope, and reading from the roof downward, is as follows: shale roof, six inches exposed; coal, two feet, five inches; bone coal, three inches; fasil sandstone, one foot, nine inches; shale, two
866 inches; bone coal, four inches; bastard coal, two feet, nine inches; bone coal, five inches; coal, two feet exposed. This section is unworkable.

Q. What is your dip there, do you know?

A. I didn't take the dip there. The dip at section J. is eighteen degrees.

Q. This map which was marked for identification showing the plat of No. 2 mine shows the workings in plan, does it not?

A. Yes, as by measurement.

Q. Does it show the workings in position with reference to each other on the slope or are they all on the same level?

A. They are all on the same level.

Q. All carried up to a horizontal plane? A. Yes, sir.

Q. You started to describe section M., I believe.

A. This section M. was measured at the face of the 8th south entry in No. 2 Diamond Coal Company's mines, and this point is approximately eighteen hundred and twenty feet south of the main slope. The section is as follows—

Q. Is that about seven hundred feet shorter than the 6th south entry? About how much shorter is this entry No. 8 than No. 6 from the main slope?

A. Seven hundred feet. This section M. reading from the roof downward, is as follows: clay roof; argillaceous sandstone one foot, eight inches; clay shale, seven inches; coal, two feet, five inches; shale, nine inches; indurated sandstone, nine inches; clay shale, three feet, four inches; shale floor. You will notice that in this section the coal has almost entirely been replaced with shale and sandstone band or strata.

867 Q. What is the greatest width of coal that you have in this section?

A. Two feet, five inches.

Q. Is that commercially valuable?

A. Oh, no. It is a good quality of coal, but it is absolutely worthless commercially.

Q. Does that complete the sections taken along this entry?

A. Yes, sir.

Q. From thence where did you go?

A. We came back to the main slope and proceeded down the main slope down to the 9th south entry, and went in the 9th south entry to its face.

Q. How far is the vein?

A. About fourteen hundred feet.

Q. In what character of material is the face?

A. Well, it has just little bands of coal and sandstone somewhat similar to the other sections which we have been reading.

Q. Is it workable?

A. No, it is not workable.

Q. Has that entry been run as far as it could?

A. I believe they are prospecting and are working there; I think it is that entry. I think they are trying to push through to see if they can get any coal. I dont remember just the condition of this entry, whether it is abandoned just now or not.

Q. Did you take some sections in that entry?

A. Yes, sir.

Q. The 9th south? A. The 9th south.

868 Mr. Kelley: We will ask to have this representation of the sections on the 9th south, marked as an exhibit and offer it in evidence.

Sheet of sections admitted in evidence without objection, marked defendant's exhibit No. 13.

Q. You may describe the sections shown on defendant's exhibit No. 13.

A. Defendant's exhibit No. 13 shows sections of the coal seam taken in the 9th south entry of No. 2 mine, Diamond Coal & Coke Company, Unita County, Wyoming, measured by Forrester, Talmage and Hopkins, April 8th, 1908, scale, one inch equals two feet. Section marked N. upon defendant's exhibit No. 13 is a section measured at room No. 1 on the 9th south entry, and approximately two hundred feet south of the main slope, and reading from the roof downward, is as follows: shale roof; coal, two feet, six inches; bone coal, five inches; coal, two feet, eleven inches; soft, black shale, seven inches; coal, two feet, nine inches; bone coal, three inches; shale floor. I have noted that the top and bottom bands of the coal bed are good coal, while the middle stratum is only fair coal; it is not very good. As a whole it is possible to work, but with very little margin of profit.

Q. All right; give us the next section.

A. Section O. on defendant's exhibit No. 13, was measured at room No. 5 upon the 9th south entry of No. 2 mine and approximately four hundred and twenty-five feet south of the main slope. This section, reading from the roof downward, is as follows: shale, one foot, seven inches; bone coal, three inches;

soft, clay shale, three inches; bastard coal, one foot,
869 eight inches; shale, two inches; coal, eight inches; bone coal, three inches; coal, two feet, five inches; shale floor.

Q. What have you to say as to that?

A. I should say it would be unworkable.

Q. At a profit?

A. At a profit. Section marked P. upon defendant's exhibit No. 13, is a section measured at the face of the 9th south entry of No. 2 mine of the Diamond Coal & Coke Company, and approximately thirteen hundred and sixty feet south from the main slope. This section, reading from the roof downward, is as follows: shale roof; coal, two feet, four inches; soft, black shale, two inches; fasil, argillaceous sandstone, three feet; bone coal, one foot; coal, three feet, four inches; shale floor, six inches exposed.

Q. Does that complete the sections taken at the south side of the main slope? A. Yes, sir.

Q. Now, before going to the other sections, is there any difference in the quantity of the coal on the south side of the slope from the north side of the slope? A. Oh, yes.

Q. Which is the better?

A. The north side of the slope is better.

Q. Very much better? A. Yes, sir.

Q. I will ask you as a practical coal miner if an owner owning the coal bed south of the main slope—if it would have ever paid anybody to work or develop it?

A. It would not.

870 Q. Then, this south side of the main slope would have been absolutely worthless without the north side?

A. Yes, sir.

Q. Did you take any other sections in the mine?

A. Yes, sir.

Q. Where? A. On the 11th north entry.

Q. You took one at the face of the main slope, did you not, or near the face? A. That is the other section.

Q. Does this sheet which I hold in my hand correctly represent the section you took at that point? A. Yes, sir.

Mr. Kelley: We offer this sheet in evidence and ask to have it marked.

Sheet admitted in evidence without objection, marked defendant's exhibit No. 14.

Q. You may now describe what you find on that exhibit marked No. 14.

Defendant's exhibit No. 14 shows sections of the coal seam taken in the 11th north entry of No. 2 mine, Diamond Coal & Coke Company, Uinta County, Wyoming, measured by Forrester, Tlamage and Hopkins, April 8th, 1908, scale, one inch equals two feet. Section marked Q. upon defendant's exhibit No. 14 was measured on the main slope at the intersection with the 11th north entry of No. 2 Diamond Coal & Coke Company's mines, and reading from the roof downward, is as follows: clay shale, three feet; bone coal, one inch; coal, two feet, four inches; clay shale, two feet, three inches; coal, two feet,
871 four inches; bone coal, two inches; coal, three feet. This section is wholly unworkable.

Q. Then, would you say No. 2 mine on the slope had reached the limit of workable coal? A. Yes, sir.

Q. How far from the mouth of the slope?

A. Forty-four hundred feet.

Q. All right. Did you take any other sections along in there??

A. Yes, sir. Section marked R. on defendant's exhibit No. 14 and approximately five hundred and twenty-five feet north of the main slope. This section, reading from the roof downward, is as follows: shale, two inches exposed; coal, two feet, eight inches; argillaceous sandstone, two feet; coal, four feet; bone coal, three inches; shale floor. This section is also unworkable. I may say that, on the north side from the outcrop down to the 7th north entry, we did not consider it necessary to go into those entries, because they all are extended northward and were operated up to the carrier pillar between No. 1 and No. 2 mine. In the 7th south entry the rooms are beginning to shorten up, showing that there was nothing—at the 8th north they made the bottom of their entry after driving eleven hundred feet of entry—they drove it forward eleven hundred feet, and out of that they only got six rooms, and none of them are finished, and a distance of five hundred feet from the last room attempted to the face of the entry.

Q. Five hundred feet? A. Yes.

872 Q. And on the 9th north?

A. On the 9th north they drove a distance of approximately sixteen hundred feet; they have been able to finish six rooms; four rooms are opened, but not finished, and a distance of seven hundred feet from the last room to the face without any rooms on it.

Q. And the next?

A. The 10th north, they have driven a distance of one thousand feet, and out of that only finished two rooms, and they have attempted to open up eight more rooms, but none of them opened to any extent, so that the distance of about eight hunderd feet on that entry does not show any workable quantities.

On the 11th north entry no room has been turned, and no place for a room to turn can be found.

Q. As far as present prospects are concerned, is there any workable coal below the 10th north?

A. I should not say there was; in fact, I should say there was not; it is run out to unworkable conditions absolutely below the 10th north, or west of the 10th north.

Q. How is the outcrop or horizon of the bed over the workings of No. 2 mine?

A. The coal shows good everywhere, where opened or exposed.

Q. Is there anything along the horizon to indicate the failure of the coal in depth? A. No, sir.

Q. After No. 2 mine, where did you conduct your underground investigation? A. In No. 4 mine.

Q. That is the most southerly mine of the Diamond Coal & Coke Company? A. Yes, sir.

873 Q. Did you make some investigations there with reference to the size and character of the coal beds as determined in the different openings of the mine? A. Yes, sir.

Q. Have you those sections? A. Yes, sir.

Q. Where did you begin?

A. We entered the main slope of No. 4 mine of the Diamond Coal & Coke Company and went down the slope to the 3rd north, went to the face of the 3rd north entry, then back to the slope and down the slope to the 5th north entry, went to the face of the 5th north, came back to the slope and went down to the 5th south entry and travelled the entire length of the 5th south entry to the face; returned to the slope and went down the slope to the 6th south, back and to the edge of the water just below the 6th south.

Q. Is that the bottom of the main slope?

A. Yes, sir. We followed the entire length of the main slope, the entire length of the 3rd north entry, the entire length of the 5th north, the entire length of the 5th south, the entire length of the 6th south.

Q. Is the 6th south the lowest entry? A. Yes, sir.

Q. Did you make some sections along your line of travel showing the character of the coal bed? A. Yes, sir.

Q. How is the outcrop or horizon about the point where No. 4 mine is located?

A. The coal at the mouth of No. 4 mine and for a distance on each side was good coal on the outcrop.

874 Q. What are the characteristics of the coal as disclosed in the workings; do the characteristics of that coal maintain in depth? A. No, sir.

Q. Do your sections illustrate this? A. Yes, sir.

Q. You may refer to the sections, Mr. Forrester; referring first, to the plat which I have in my hands, what is it and what does it purport to be?

A. It is a map of mine No. 4 of the Diamond Coal & Coke Company, scale, one inch equals two hundred feet.

Mr. Kelley: We ask that this be marked for identification.

Map of Diamond mine No. 4, marked defendant's exhibit No. 15 for identification.

Q. Where did you begin taking your sections?

A. On the 3rd north.

Q. Does this plat represent the sections taken on the 3rd north? A. Yes, sir.

Q. Do you know that this plat correctly shows the sections? A. Yes, sir.

Mr. Kelley: We offer in evidence the sections taken in the 3rd north entry of No. 4 mine and ask that it be marked as an exhibit.

Sheet of sections admitted in evidence, without objection, marked defendant's exhibit No. 16.

875 The Witness: Defendant's exhibit No. 16 shows sections of the coal seam taken in the 3rd north entry of No. 4 mine, Diamond Coal & Coke Company, Uinta County, Wyoming, measured by Forrester, Talmage and Hopkins, April 8th, 1908, scale, one inch equals two feet.

Q. Very well, you may give the sections as described on the plat, defendant's exhibit No. 16.

A. Section marked S. on defendant's exhibit No. 16 was measured at room No. 1 on the 3rd north entry of No. 4 mine and is located approximately two hundred feet north of the main slope, and reading from the roof downward, is as follows: sandstone roof; shale, five inches; bone coal, four inches; soft, black shale, eight inches; bastard coal, three feet, four inches; clay shale, two inches; coal, one foot, six inches; bone coal, one inch; coal, six feet; shale, three inches; sandstone, four inches; shale, two inches; coal, very dirty, one foot, five inches; bone coal, four inches; shale, eleven inches; argillaceous sandstone floor, two feet exposed.

Q. Commercially, what is the character of the coal at this point?

A. I believe I had better give a little description here before starting in. The floor of the coal vein worked in this mine is the floor of the six foot stratum of coal, that portion which is shown in the different sections along this level and shown throughout the mine; it is exposed in the chute holes

made in the floor to allow the car to get under the chute for loading, and at no point in the mine is it workable in this lower portion; so that the coal as worked is that portion of it above the floor of the six foot stratum of coal shown
876 in section S. The quality of the coal as a whole is good; the top three feet, four inches is bastard coal, but we have seven feet, six inches, of good coal beneath, with only a little streak of one inch of bone coal, which would not have any effect or a very material effect on the commercial use of this coal; so that, take it is a whole, it is all very good working coal. Section marked T. upon defendant's exhibit No. 16 was measured at room No. 15 upon the 3rd north entry of No. 4 mine and approximately nine hundred feet north of the main slope.

Q. Did you take the dip of the vein or bed at S.?

A. Yes; the dip was twenty-one degrees to the west. Section T., as has been described, reading from the roof downward, is as follows: sandstone roof; shale, four inches; coal, good, one foot, seven inches; shale, one inch; sandstone, seven inches; shale, four inches; bastard coal, two feet; bone coal, five inches; coal, dirty, eight inches; clay shale, one inch; coal, six feet; bone coal, two inches; coal, one foot; shale, nine inches; coal, eleven inches; bone coal, seven inches; shale, four inches; sandstone, two feet exposed. The working floor of the mine at this point is at the bottom of the one foot stratum below the six foot stratum of coal, and is still good, workable coal.

Section marked U. upon defendant's exhibit No. 16, was measured at room No. 20 on the 3rd north entry of No. 4 mine and approximately thirteen hundred feet north of the main slope, and reading from the roof downward the section is as follows: sandstone roof, two feet exposed; shale, three inches; coal, one foot, three inches; bastard coal, nine inches; soft, black shale, eleven inches; coal, three feet; coal, soft and slatey, dirty coal, one foot, three inches; arenaceous
877 shale, six inches; coal, nine inches; bone coal, six inches; coal, one foot, six inches; bone coal, three inches; arenaceous shale, one foot, six inches exposed. The floor of the mine is at this point the bottom of the one foot, three inch stratum of dirty coal, and the dotted line across the section is the working floor of No. 4 mine upon the exhibit. This coal is all worthless coal, unworkable.

Q. Mr. Forrester, will you repeat the room at which that section was taken.

A. Room No. 20. In copying it off it is marked No. 2, to which I have added the zero with red crayon.

Q. Very well, you may proceed with your next section.

A. Section marked Z. on defendant's exhibit No. 16, is a section measured at the face of the 3rd north entry of No. 4 mine and is approximately seventeen hundred feet north of the main slope. That section, reading from the roof downward, is as follows: sandstone roof; bone coal, one foot, one inch; clay shale, three inches; light colored shale, one foot, two inches; black shale, four inches; coal, six inches; light colored shale, one inch; bastard coal, two feet exposed.

Q. What is the character of the coal, commercially, at that point? A. Absolutely worthless.

Q. Is that the end of that entry? A. Yes, sir.

Q. And would you say as a practical coal man that that is the termination of it finally; is there anything to drive on more northerly than that?

A. No, sir; they have been driving on, trying to get through that to see if it was local, but they have been unable
878 to get anything through it and have abandoned the level and it is now all caved, and it was so caved that we could not get down to the actual floor, but it was close by. We dug down as far as we possibly could.

Q. From this entry where did you go?

A. We went back down to the main slope, and then down that to the 5th north entry and traversed the entire length of the 5th north entry, taking a section at the intersection of the main slope with the 5th north, and another at the face of the 5th north.

Q. Does this plat correctly show the sections which you took on the 5th north entry? A. Yes, sir.

Mr. Kelley: We will ask you to have this introduced in evidence and to have it marked.

Plat containing sections of this north entry, admitted in evidence, without objection, marked defendant's exhibit No. 17. 17.

Q. You may describe the sections as shown.

A. Defendant's exhibit No. 17 shows sections of the coal seam taken in the 5th north entry of No. 4 mine, Diamond Coal & Coke Company, Uinta County, Wyoming, measured by Forrester, Talmage and Hopkins, April 9th, 1908, Scale, one inch equals two feet. Section marked W. upon defendant's exhibit No. 17 is a section measured on the main slope at the 5th north entry of No. 4 mine of the Diamond Coal & Coke Company and reading from the roof downward, is as follows: Sandstone roof, four feet exposed. I note here that the draftsman has made an error by saying four inches instead of four feet; it should be four feet from my original notes.

879 Q. Will you just correct it on the plat.

A. Yes, sir. Sandstone roof, four feet exposed; shale, six inches; soft, black shale, one foot, three inches; bastard coal, six inches; light colored shale, one inch; bastard coal, three feet; light colored shale, one inch; coal, seven feet, three inches; shale floor, nine inches exposed. Dip, twenty-two degrees to the west.

Q. How is the coal at this section?

A. The coal is workable just at this point; the seven feet, three inches here would be workable, but on top of it is a three foot band and a six inch band of bastard coal which is worthless, and with soft, black shale on top of that, practically one foot, nine inches, which forms a following and would make it a very difficult problem to work it profitably at that point, even with the seven feet, three inches of coal, and I would not like to open up any room on it. The section marked X. upon plaintiff's exhibit No. 17 is a section measured at the face of the 5th north entry approximately eleven hundred feet north of the slope. This section reading from the roof downward, is as follows: sandstone roof; shale, one foot, six inches; soft, black shale, three inches; bastard coal, one foot, two inches; soft, black shale, six inches; light colored shale, two feet; bastard coal, two feet; liyht colored shale, eight inches; coal, one foot; sandstone floor.

Q. What is the greatest width of coal that you have disclosed in this section? A. Two feet.

Q. And what is the character of the coal which is exposed?

A. It is worthless.

880 Q. What have you to say as to whether or not that section represents a bed commercially valuable?

A. It does not; it is absolutely worthless.

Q. What is the general character of the bed along this 5th north entry?

A. I have a note here on that entry. The coal is normal about three hundred, that is, normal in consideration of the coal shown in the first section, marked W., after which the interstratified bands of shale keep increasing till at the face we get this section which I have just read as section X. The roof is badly caved for a distance of one hundred and fifty feet back from the face in a narrow entry, far in advance of the broken work; there is no room open upon the entry.

Q. There has been absolutely no coal taken out of this entry, then, has there? A. No, sir.

Q. Does that complete the sections taken on the north side of No. 4? A. Yes, sir.

Q. Was there anything along the horizon north of that point where the slope was opened to indicate the failure of the coal in depth below it?

A. North of No. 4, half a mile, we measured a section.

Q. That is on the horizon, is it?

A. On the horizon, about where the coal came to the surface and was exposed. At that point, which was half a mile north of No. 4 mine is shown a section marked No. 3 in red crayon on defendant's exhibit No. 5, and the section shows two feet of clay shale roof, bone coal, four inches; coal, three feet exposed, so that there is a thinning of the coal at that point which is apparently the same thinning reaching down into the unworkable portions of the mine which have
881 been shown in these sections measured to the north.

Q. In order to be the same, that thinning must take a southerly direction? A. A southwesterly direction.

Q. A southwesterly direction. Now, then, directly east of these unworkable portions of the mine, projected up to the outcrop, was there anything on the outcrop to indicate it?

A. No, sir.

Q. Now, then, I observe that you run into a thinning as you go north from No. 4? A. Yes, sir.

Q. And also as you go south from No. 2 mine? A. Yes, sir.

Q. What is approximately the intervening distance between the workable coal northerly from No. 4 slope and southerly from No. 2 slope? A. About two miles.

Q. What have you to say as to your opinion, or what is your opinion as to whether or not there is any workable coal in that intervening space?

A. There is none indicated on the surface, none whatever. As to anything down below, I don't know; the Lord only knows, and it is a question if He does.

Q. Have you any opinion, based upon the inspection of these workings toward each other?

A. All the work tends to show that there is not; it is all going to prove that, but no one—I should not and no one who has had any practical experience would attempt to open a mine upon this two mile section between No. 2 mine and No. 4
881½ mine, because the coal as showing at any point is wholly unworkable.

Q. That was prospected to some extent by what was designed to be No. 5, wasn't it? A. Yes, sir.

Q. And did the prospecting demonstrate what you say as far as it was carried on? A. Yes, sir.

Q. Where did you go in the further examination in No. 4 mine?

A. We came back to the slope on the 5th north, and went down from the 5th north to the 5th south, and went into the face of the 5th south entry and measured two sections upon that entry.

Q. Do the sections marked section of coal seam in 5th south entry, No. 4 mine, correctly show the sections you refer to?
A. Yes, sir.

Mr. Kelley: We offer this sheet of sections in evidence.

Sheet admitted in evidence, without objection, marked defendant's exhibit No. 18.

Q. You may describe the sections shown on exhibit 18.
A. Shall I read the title?
Q. It is unnecessary to read it.
A. Section marked Y. on defendant's exhibit No. 18, was measured at room No. 1 upon the 5th south entry of No. 4 Diamond Coal & Coke Company's mine. This point is approximately two hundred feet south of the main slope, and reads from the roof downward, as follows—
Q. Have you got the dip at that point?
A. The dip of the main slope at the 5th entry is twenty-two degrees to the west. Shale roof, one foot, two inches ex-
882 posed; bone coal, one foot; bastard coal, two feet, eleven inches; light colored shale, one inch; coal, six feet, one inch; bone coal, three inches; arenaceous shale, six inches; coal, three feet, two inches; shale, two inches; sandstone, one foot, two inches exposed. That vein is workable and would produce commercial quantities of coal. Section marked Z. upon defendant's exhibit No. 18 was measured at the face of the 5th south entry of No. 4 mine and is approximately twenty-nine hundred feet from the main slope. That section measured from the roof downward is as follows: hard, blocky, shale roof, one foot exposed; soft, black shale, three feet, three inches; the hole of this four feet, three inches formed a following. Coal, three feet, ten inches; light colored shale, one inch; coal, two feet, nine inches; bone coal, three inches; coal exposed, one foot, three inches. I have a note on this section that they cannot keep up this following of soft, black shale and therefore it breaks down and is mixed with the coal. This shale comes in about two thousand feet from the main slope and continues getting thicker until the face of the entry is reached at twenty-nine hundred feet from the slope, so that I should say that they have reached the limit of the workable coal in that entry, although we have a good coal in three bands having a total thickness of seven feet, ten inches, but still this following coming down even in the narrower workings, prevents the economical working of it in room work. As a further proof of that, we have a thousand feet of that entry without a room turned off, and that is on account of this soft shale coming down and being unable to keep it up. If it is not abandoned I would expect it would be in a very short time.

Q. Where else in No. 4 did you go?

883 A. We came back to the main slope and measured a section above the 6th south and also in the 6th south back entry.

Q. Have you those sections?

A. These are the sections.

Q. I will ask you to state whether the sections you refer to are correctly represented on this sheet which shows sections of coal seam taken in main slope No. 4 mine? A. Yes, sir.

Mr. Kelley: We offer this sheet in evidence.

Sheet admitted in evidence, without objection, marked defendant's exhibit No. 19.

Q. You may describe the sections shown upon exhibit No. 19, Mr. Forrester. I will ask you, so the record will show, was this section taken at the lowest entry that has been turned off?

A. Yes, sir. Section marked A. 1. on defendant's exhibit No. 19 was measured at room No. 1 on the 3rd north entry of No. 4 mine and approximately two hundred feet—

Q. Now, just a minute. I ask you to describe the sections on exhibit No. 19. Is that the one you are referring to?

A. I have got it. It would be common to another section; that is, A. 1. is common to S.

Q. Just make your explanation in the record so it will be straight.

A. Well, that was what I was going to do. Just about two hundred feet north of the main slope, and this A. 1. section is the same as the S. section on defendant's exhibit No. 16 and reading from the roof downward, it is as follows: sandstone roof; shale, five inches; bone coal, four inches; soft, clay shale, eight inches; bastard coal, three feet, four inches; clay

884 shale, two inches; coal, one foot, six inches; bone coal, one inch; coal, six feet; shale, three inches; sandstone, three inches; shale, two inches; coal, very dirty, one foot, five inches; bone coal, four inches; shale, eleven inches; argillaceous sandstone, two feet exposed. Section A. 2.—

Q. Just a minute. This exhibit No. 19 shows section of the coal taken at different points along the main slope, then?

A. Approximately near the main slope.

Q. For the purpose of showing the comparative character of the bed as you descend along the slope? A. Yes, sir.

Q. And A. 1. shown on exhibit 19 is the same as you have heretofore read in evidence as S. on exhibit No. 16?

A. Yes, sir.

Q. A. 2., where does that occur?

A. Twenty-one hundred feet from the mouth of the slope westward.

Q. What is shown there?

A. It is shown in the section marked A. 2. measured thirty feet below the first crosscut below the 5th south entry in the main slope of No. 4 mine, Diamond Coal & Coke Company, and reading from the roof downward, is as follows: hard, blocky shale, one foot exposed; bone coal, one foot; bastard coal, one foot, six inches; light colored shale, one inch; coal, three feet, ten inches; soft, black shale, four inches; coal, four inches; soft, clay shale floor, two inches exposed. The dip at this point is twenty-five degrees to the west. This coal is unworkable. A. 3. is a section measured at the face of the 6th south back entry of No. 4 mine and approximate-
885 ly sixty-five feet south from the main slope. Shale roof; coal and shale, six inches; coal, one foot, two inches; soft, black shale, one foot, eight inches; coal, four feet, six inches. Now, that is wholly unworkable. The main slope from the 6th south, back entry, the top light colored shale comes in and in a rapidly increasing way; from a couple of inches it increases to thirty inches in twenty-five feet at the edge of the work in the back of the main slope.

Q. That is measured to the water in the main slope?

A. Yes, it increases from two inches to thirty inches, so that we have reached the limit then to the south of these entries and the surface shows that there is something wanting on the south.

Q. What is the depth of the main slope of No. 4?

A. Approximately twenty-two hundred feet.

Q. That is along the slope?

A. That is on the map measurement; of course, the slope would be a little longer.

Q. That is horizontally?

A. Horizontal measurements.

Q. Now, have you got the figures showing the actual depth of the slope? A. No.

Q. You did not measure the slope itself on its dip?

A. No, we just simply checked off the levels.

Q. Now, does that conclude in a general way the underground investigations which you made? A. Yes, sir.

Q. According to the workings exposed, what have you to say with reference to the character of the bed or any
886 change you have in the lower entries as you work southerly from the main slope?

A. Well, I testified to the slope that we were near the limit of profitable work on the 5th south entry. On the slope and the last thousand feet, I believe it is, on the 5th south entry was driven without a room on it and without the hope of getting a room, driven forward as a prospect entry to see what, if any, improvement could be found in the territory to the

south. They have not found anything so far, and it is my opinion and my judgment that they will not get it within the limit of the work.

Q. Do you assume to be able to tell with any degree of certainty what the possibilities are where you cannot see them, where they are undisclosed?

A. Nothing further than the fact that if the coal is thinning out we like to do some prospecting work to find out if it is continuing thinner and thinner. We don't know and nobody can know what the possibilities are ahead of us, and that is the reason why so much money has been spent in developing where the face showed actually no working coal. It is a matter of trying to find out, before abandoning it, if it is any use to go further.

Q. Do you mean to tell us that coal mining is such an uncertain proposition that money is actually spent without return in the investigation of coal beds?

A. I should say it was; vast sums of it.

Q. Do the coal operators know of Mr. Veatch's theories?

A. Well, as far as I have seen them in his paper upon this field, not only the coal operators, but all of the working geologists in the field would be more than pleased to
887 have that absolute knowledge that he claims to have, but which does not work out in practice.

Q. Did you go into any of the other mines southerly, the Cumberland mine?

A. No, I did not. I wanted to get in No. 3 Cumberland and upon making investigations found it had been closed down for about two months, I think, and there, in addition to black damp, carbon dioxide and methane gases, which are explosive. I don't like to go into old mines that way unless sufficient time has been given to thoroughly clear the mines of noxious gases.

Q. So the reason you did not go was because the mine had been closed down and was in an unsafe condition?

A. Yes, sir.

Q. Did you go into the mines in Kemmerer to the north?

A. We went up the Kemmerer to get in there and found that their mine next to the Diamond Coal Company's No. 1 mine had been closed down, and the gates were locked at the mouth of the slope. We went over there to see Mr. Quailey to see if it was possible to get in there. Mr. Quailey was not in town, but we met his superintendent and he said it would not be advisable to try and get in there on account of the ventilation.

Whereupon further hearing was continued until 1-30 P. M. of this day.

888 Tuesday, April 21st, 1908, 1-30 P. M.

Robert Forrester,

Direct Examination, Resumed

By Mr. Kelley:

Q. Mr. Forrester, I think you had concluded an examination of your underground investigations this morning?

A. Yes, sir.

Q. And I want to ask you if, in addition to the expert or scientific end of the coal mining you are acquainted at all with the practical, economic features that enter into it?

A. Yes, sir, I am.

Q. Have you been engaged in coal operations in different parts of the country? A. Yes, sir.

Q. What are some of the principal factors in determining the economic value of coals and coal lands?

A. First would be the quality of the coal; second, its thickness; third, its accessibility; fourth, transportation; fifth, the markets; sixth, the cost of the operation.

Q. Now, with reference to the quality of the coal, what has that to do with it; what do you mean specifically?

A. Well, it should be low in ash and also low in sulphur; these are the two, main, bad features in coal.

Q. The lower in ash and in sulphur as a general proposition, the more valuable, commercially?

A. Yes, sir, providing of course that you do not have an excess of moisture. I am figuring on bituminous coals in general, within practical limits.

889 Q. Does the hardness of the coal with reference to handling have anything to do with it? A. Oh, very much.

Q. In what way?

A. It affects the market to a great extent in that, in the mining, if the coal is hard and stands the breaking down so as to produce minimum amount of the small sizes, and it does not slack when exposed to the weather in storage, then it would be considered a good quality of coal, providing the ash and sulphur were within reasonable limits.

Q. What relation does the quantity of the coal susceptible to mining bear to the economic value?

A. Well, of course, that is a matter that is variable and that has to be worked out in each individual field. What would be workable in one field would be entirely unworkable in another.

Q. Why?

A. Because you may have shallow covers on the coal, therefore you would have little pressure and you are adjacent to a very large market, and the prices of coal are good and high and

labor conditions are normal or comparatively low, where you have abundance of labor, so that a coal that might be thin in one place, under the same conditions would be as workable as a thicker vein in another place.

Q. When you use the verb are, are you assuming conditions or did you have reference to the conditions which exist in this particular field?

A. I am talking about conditions generally; I said when you come to consider any individual field, you have to take the conditions in that field and make your estimate accordingly.

890 Q. Does the cleanliness or interstratification of the coal on one or the other hand have anything to do with it?

A. Oh, yes, they have a great deal to do with it.

Q. In what way?

A. Because if you have interstratified bands, if they are not valuable for mining then you are producing a coal, which while the ash may not be high in the coal, itself, still it makes a high ash when you take the general product of the mine, and therefore it may be an unsuitable fuel.

Q. Are you acquainted with the coal in this particular field?

A. Yes, sir.

Q. Taking the field as a workable proposition?

A. Yes, sir, that is, that portion of it in and around Diamondville.

Q. What have you to say as to the quality of the coal that is being mined here, compared with other bituminous coals?

A. The quality of the coal as to the coal, itself, from the analysis, is very good, but when you take into consideration that bastard coal, and the interstratified bands and the following, it makes a coal which is mighty hard to put upon the market in competition with the cleaner coals of the West here; and furthermore, the markets of the West are limited; the distances over which the coal has to be hauled on the railroad are extreme, so that everything is against the cheap operation or the cheap working of this Diamond field of coal.

Q. Do you know where the Diamond field finds its principal market?

A. My understanding of that is that its principal markets is in and around Butte, used by the owners of the property.

Q. Do you know what the distance of transportation is
891 to market?

A. Approximately four hundred and fifty miles.

Q. I will ask you if you are acquainted as a matter of industrial information with the relations which the Diamond Coal & Coke Company bears to the Amalgamated Company, generally?

A. Well, only in a general way and by public reports, in that the Diamond Coal & Coke Company, when it was first organized, was a corporation owned by the stockholders, some of whom were in Utah or the West there and the other part of them was in and around Minneapolis.

Q. I don't care for the details about that.

A. At present I understand that they have sold out to the Amalgamated Copper Company.

Q. Do you know for what this coal is used by the Amalgamated Company, the larger part?

A. For steam and reverberatory use would, I think, consume the largest proportion of it.

Q. From your knowledge of this field, let me ask you if you believe that these mines could be operated profitably if the coal had to be put into competition with other coals upon the general market?

A. I don't believe it could; it would be very hard to do.

Q. Is there any local market which could take care of any of this coal or of any great quantity of it?

A. No, there is not.

Q. Where is the nearest industrial center to this field?

A. I should say the portion of Idaho through which the Oregon Short Line is running and the sugar works along those lines would give it the principal market in a commercial way.

Q. You mentioned accessibility as being an economic factor; accessibility as to what?

892 A. As to opening up the mine in its relation to a railway, so that it would have plenty of room for railroad yards, plenty of room for a town for the housing of the laborers, and the configuration of the surface so that you could get ready access to the coal bed itself.

Q. In that respect this coal is accessible, is it? A. Yes, sir.

Q. You mentioned transportation. By that I suppose you mean the distance which we have already covered, and the rate for carriage? A. Yes, sir.

Q. Do you know what the rate for carriage upon coal generally is per hundred miles?

A. Why, I have, in a general way, in different places; I don't know what it is in this field; I don't know the freight rates.

Q. You don't know what the rates of carriage to market are in proportion to the cost of mining?

A. No, sir, not for this field.

Q. What are the principal factors which enter into the cost of operation of a coal field?

A. Well, there would be first the cost per ton for mining the coal.

Q. And what are the conditions with reference to that in the West and particularly in this section?

A. In regard to that, the prices are good, working prices; they are about fifty-two to fifty-eight cents, I believe, per ton of two thousand pounds. That, as compared with Utah, would be probably about forty-five to fifty cents for a ton of twenty-four hundred pounds. In Colorado the prices will range
893 from about forty-five to fifty-five cents for a ton ranging from twenty-two hundred and forty to twenty-eight hundred pounds to the ton.

Q. Now, how does the cost throughout the West here compare with the cost in the Eastern, bituminous fields and in other parts of the country?

A. The cost of mining in the West is very much larger.

Q. How do these coal fields compare with the Eastern coal fields with reference to their accessibility and nearness to industrial works?

A. Well, taking the West as a rule, it is not nearly so accessible to market, in fact, there are no markets to compare with the Eastern markets.

Q. Is that particularly true of this field?

A. Yes, and furthermore the coals of the East are in densely populated districts, so they have no long distances to go; the coal beds, as a rule, are more regular than in the West and are more profitable, and they are deposited in more regular formation.

Q. Then, as I understand you, do the coal fields of the West compare with the coal fields of the East at all in regularity of structure and extent covered?

A. They do not compare at all; they compare very unfavorably for the West.

Q. What is the availability of timber—do you have to use timber?

A. Large quantities; that is one of the other points of cost. We are mining, probably, on an average of about nineteen to twenty-five tons of coal for each prop used; that would be a fair average to take, but if the timber is not readily
894 available at reasonable cost, it very materially adds to the cost of mining.

Q. What do you say with reference to the availability of timber at this field?

A. Well, it is not very available.

Q. There is no timber at all immediately around there?

A. No, none whatever.

Q. Does the angle of inclination have anything to do with it? A. Undoubtedly a good deal.

Q. In what way?

A. In that, when you have an angle of inclination above your level, every percentage that you add to it is adding to the increased amount of power that you require to have, be it manual, animal or mechanical power, to move your cars as you are loading them. It is all taking up power. Above a certain per cent. manual or animal power is not able to handle the cars upon that grade, and yet the grade is not quite steep enough to run it down in chutes, and then, of course, you are at your most adverse conditions, when you get at about that point.

Q. Is the angle of inclination of that vein here such as makes the cost of operation heavier? A. It is.

Q. As compared with other coal fields?

A. Yes, the grades are just about that point; they may be a degree or two below in one place and a few degrees above in the other; you are just on the fluctuating point.

Q. With reference to the roof and the floor of the mine, are these important factors? A. Yes, sir.

895 Q. Are they important factors here?

A. They are very important factors here.

Q. Is the No. 1 mine the most extensively worked of the Diamond Coal & Coke Company? A. Yes, sir.

Q. How much coal has been actually taken out of the mine as compared with the coal that has been necessarily left in it to support it?

A. I should estimate that you have left in over sixty per cent. of the coal.

Q. Do you know, have you computed it so that you know it is in excess of sixty-five per cent?

A. I have not computed it closely enough for that; I have simply made a rough estimate.

Q. Was that necessary in order to work the mine at all?

A. To leave in this coal?

Q. Yes. A. Yes, I think it is.

Q. What would have been the result had it not been done?

A. They would have lost their rooms and entries by the first squeeze that came by insufficient support for the roof.

Q. What percentage of the coal that has been left in the mine do you think is available for recovery?

A. I don't believe they will recover more than ten per cent.

Q. Why?

A. Because just as soon as they begin to pull the pillars they will get the first few pillars out in full, but the breaking of the roof will bring on a squeeze and that will stretch over a large number of pillars in the entry to such an extent that you will lose great stretches.

896 Q. Is this condition becoming manifest in the mine at this time?

A. It is very pronouncedly manifest today.

Q. Is that one of the reasons, do you know, that necessitated the abandoning of the lower workings of the mine?

A. Well, I couldn't say as to that; the impression that I had formed from all the conditions there was that the coal was getting too thin to work in the lower workings, but there is one feature about it that even if it had been thick enough to work they are very close to the limit of operations in that field and in that particular portion, because on the 10th south at a vertical depth of about seven hundred and fifty feet, the 10th south level of No. 1 mine, the roof has broken down, the floor has heaved, so that it is absolutely closed just as close as if no entry had ever been run there.

Q. That is on the 10th south?

A. That is on the 10th south and under a cover of about seven hundred and fifty feet.

Q. Is that the lowest level?

A. No, it is not the lowest level, but it is about the lowest working; all the rest is narrow work.

Q. From your experience, Mr. Forrester, let me ask you what would you consider as being the minimum thickness of coal that would be workable commercially if worked for a market, assuming that the mining conditions in regard to the floor and roof were favorable, in this field?

A. Well, from the actual conditions as they are today where the roof and floor are actually in the best shape and best condition that they could get at all, when you get down to five feet the miners have to be paid specially for it.

897 The miners consider that deficient work, that is, it is not a normal, workable coal, and the price is increased.

Q. Do you believe that the overburden or roof, the distance vertically from the surface to the coal has anything to do with the limit of profitable mining?

A. That certainly has a great deal to do with it.

Q. In what way?

A. Because if you have a certain overburden you have to increase the width of your pillars, and if you have anything like a tender roof, you are not going to be able to keep it up; it is going to squeeze down and cave on you, and your cost of keeping your entries and working faces open is going to overshadow and overwhelm the profits from the operations.

Q. What is the greatest distance, vertically, which the Diamond Coal & Coke Company have to this time extended their workings, do you know? A. In No. 1?

Q. Yes. No. 1 is the biggest?

A. Yes, sir. I should judge about a thousand feet there they have covered.

Q. Of overburden. I wish to ask your attention particularly to the land in controversy in this action. Are you familiar with it? It is colored in red, I believe, with the exception of that southerly red portion on complainant's exhibit No. 280.

A. Yes, sir; that south 24 is not in it, is it?

Q. No, no.

A. Section 18 on the south line.

Q. The most southerly is the portion here, the north half of the southeast quarter of section 18.

A. Yes, sir.

898 Q. In township 19 north.

A. And the north one is 18?

Q. Section 18 in township 20 north, range 116.

A. Yes, sir.

Q. And the intervening ground that is colored red is the ground in controversy.

A. Yes, sir, I have been over the land.

Q. You have examined the surface of this land, have you?

A. Yes, sir.

Q. And have you examined the land with reference to its position relative to the coal horizon? A. Yes, sir.

Q. From your detailed study of the surface and underground conditions which exist in this field have you any opinion or can you express an opinion as to whether or not this land, as far as the developments show, is valuable for coal mining purposes?

A. I should say without reservation that it is not valuable for coal mining purposes.

Q. As far as you can determine?

A. As far as I can determine.

Q. You cannot state positively, from anything that is disclosed upon the ground, can you, whether there is any coal beneath the surface or not?

A. I cannot and no other man can.

Q. Is there anyway known to your science by which any man, as far as you know, can determine in advance of actual exploration whether or not this land will be valuable for coal?

A. No man can do so; it is a physical impossibility.

Assuming that coal in marketable quantities does de-

899 scend beneath the surface of this land, is there any portion of the land which, under those circumstances, would not be valuable for coal mining purposes?

A. The bulk of it would be not valuable as coal land?

Q. Why?

A. Because of too great depth of operation.

Q. Have you made any computations which show the probable depth of the coal bearing rocks when they descend beneath the surface of this land?

A. We have not made that, but we have the notes by which, if we take Mr. Veatch's map and take his dips at different places we can figure approximately where it should come if it actually exists.

Q. As your opinion, as I understand it, is that the bulk of the land would be beyond any possible, workable limit?

A. Yes, sir.

Q. Now, would you say that prior to the time when No. 4 mine had been developed or developments had been made in the Cumberland group of mines and before any railroad was extended southerly so as to make this land accessible to the railroad, you as a coal miner, would consider it valuable coal land?

A. Well, I think the best answer to that would be that when I was opening up the mine at Diamondville in 1894, after taking a trip through that valley as far as Evanston, I would not even spend enough money to open up the coal anywhere along that line to see whether it was of working thickness or not; I did not consider it would be worth the taking up or purchase.

Q. That refers to the land immediately adjoining this horizon, does it not?

A. Yes sir. I would [nor] even have bought the horizon,
900 the part where the coal showed the outcrop and pay coal prices for that at that time.

Q. What would you say as to whether or not you would have bought at coal prices the land in controversy in this action?

A. I would not think of it for one moment; I would not think of it today.

Q. Do you as a practical coal miner consider that the lands in sections 18, 30, 20 and 6 in township 20 north, range 116, and in 12 and 18 in township 19 north, 12 in 117 and 18 in 116 west—would you consider them valuable as coal lands today, or any part of them in segregated one hundred and sixty acre tracts? A. I would not; absolutely not.

Q. Do you know of any portion of this land that could be worked as coal land, assuming that the coal underlies it, unless it was owned by the same person who owned the horizon and who can follow it down on the slope?

A. I should say not; it could not be, and furthermore, that no man living would start into that field anywhere on one hundred and sixty acres and even make the attempt to work the coal in any of that land in dispute.

Q. What have you to say as to the ability or practicability of taking even larger areas there and going out and sinking vertical shafts for the purpose of obtaining the coal?

A. Impracticable.

Q. Why?

A. Because the first initial cost of opening up the coal is so great that you would never, in your operations and with the markets for your coal as they exist today, pay a return upon the initial investment.

901 Q. Is there any way in which you could determine in advance of sinking vertically and uncovering this coal, whether there was any coal down there or not?

A. The only way would be by putting down diamond drill holes.

Q. Have you any idea what it would cost to develop this ground in controversy by diamond drill holes so as to determine whether or not it would be practicable to open coal mines on these sections?

A. Well, the cost of drilling them and proving a section there—there should be holes put down about every thousand feet. The sections should be laid out in thousand foot squares and holes put down at each of these corners. Now, in diamond drill work, about the smallest core that is practicable for deep holes is what you would term the end drill, two to two and a half inch core. That, for the first five hundred feet, will average two dollars per running foot; the next five hundred feet will cost an average of about three dollars and a half for a running foot and the next five hundred feet will cost at least, five dollars, so that there is fifteen hundred feet of which you can get an idea of the cost, and it would be merely a matter of multiplying that by the number of holes in a section, so you see that the investment there would be enormous.

Q. Could you, from the core obtained in such a hole as you have described tell anything about the character of the coal bed?

A. Yes, by using the double core barrel.

Q. You could not get it from the single? A. No, sir.

Q. Why?

902 A. Because the grinding effect of the core upon itself is too great.

Q. Would it destroy the integrity of the coal?

A. Yes, sir.

Q. Can you state that the cost of prospecting in this way would be absolutely prohibitive of its being done?

A. It would be, without question.

Q. Mr. Forrester, I wish to call your attention to some matters testified to by Mr. Veatch who appeared for the Government as an expert in this case. Are you familiar with the relations that exist generally between the operators and the Geological Survey?

A. I know the present feeling. There has been a great deal of ground of late—in the past it has been very cordial.

Q. I mean as far as information is concerned which is given to the Survey for their assistance in carrying on the work of the Survey?

Mr. Birch: We object to that as immaterial.

A. Yes, sir.
Q. What is it; is it a confidential character?
A. Every time.
Q. Do the instructions of this Survey expressly so state?
A. Every manual of instruction so states.
Q. I want to call your attention to the following statements by Mr. Veatch found in the transcript of his testimony page M-b 18: "Q (referring to this coal horizon) "How does it vary, if at all, from the way it exists along by the Diamond Coal Company's mines No. 1 and No. 2; I think they have
903 been spoken of, in township 21. A. The character of the vein in that region is essentially the same as the vein going south. Q. How is it as to its characteristics as found in section 31, township 19 north, where the Cumberland mine is? A. It is the same character of vein; the vein is of the same character throughout its whole extent." Do you agree with that statement? A. I do not.

Q. What have you to say as to whether or not the statement is, in your opinion, true or false?

A. It is absolutely false, and anyone who will say such a thing of that vein, that it extends unchanged through from Diamondville No. 1 to the Cumberland mine, either does not know what he is talking about, or he is lying unmercifully and has no respect for the truth.

Q. I will ask you to state if you are acquainted with a work entitled The Manual of Coal and its Topography by Mr. J. P. Leslie?

A. I was not acquainted with it and did not know of it until I saw a reference to it by the Secretary of the Interior in one of his published decisions, and I had a good deal of hunting through second hand stores to find a copy of it.

Q. Did you find a copy? A. Yes, I finally found one.
Q. What is the date of that publication, do you know?
A. Amout 1856, I believe; 1854 or 1856.
Q. Do you know who Leslie was?
A. I know he was connected with the Pennsylvania Geological Survey.
Q. Is Leslie regarded as an authority by mining operators and scientific coal miners of the West on the Western
904 bituminous coal fields?

A. No, sir, I should say not. He did not even know about them.

Q. When Leslie wrote this book, to what extent had the coal measures of the West been developed?

A. Practically not at all.

Q. Was there a single producing coal mine that you have any knowledge of in the Western states?

A. I don't believe there was a single mine that you could call a producing mine today; there were one or two little, country banks where the little stations, trappers' stations and stage stations and things of that kind got a small supply for blacksmithing and things of that kind, but as for a mine, we really did not have one in the entire West.

Q. Are you acquainted with this book of Leslie's?

A. I have read it since I obtained it.

Q. Is this book written with reference to the carboniferous coal deposits of the East or the cretaceous coal deposits of the West?

Q. It is written with reference to the carbonaceous deposits of Pennsylvania in particular.

Q. Do you agree with this statement found in Mr. Leslie, quoted by Mr. Veatch in his evidence found on page M-b36: "Coal is never found issuing in veins from the interior of the planets like gold and silver, nor filling irregular cross crevices in the limestone like lead, nor spread abroad in lakes of molten lava like basalt and greenstone, nor embedded in clay, crystalizing upwards from the walls and bottoms of deep wide fissures, as bunches of grapes, or in bundles of pipes,
905 like the hematite ores; nor lying exposed upon the surface in blocks, like native copper, or meteoric iron; but always as a thin sheet or stratum, extending through the hills as far as the hills extend, and enclosed between similar sheets of other kinds of rocks."

A. Well, I agree with the first part of his statement.

Q. That is, that there is a distinction between fissure veins and coal deposits?

A. Yes, but when he goes on to say that coal extends in then strata of any width as far as the hills extend, he is entirely wrong.

Q. Do you agree with this statement, quoted from Leslie on page 37: "The original deposit of carbonaceous matter seems to have been in every instance almost coextensive with the lake or sea in which it was laid down."?

A. Well, if you will qualify that by giving the size of the sea or lake in which it is laid down. In the West here there are big deposits to a very limited extent; in fact, it would be hard to get them one or two miles in diameter anywhere in the coal deposits of the West here.

Q. Has that any application to these coal deposits in the West? A. None whatever.

Q. Do you agree with this statement, found on page b 38 of Veatch's testimony: "Under ordinary circumstances and for all practical purposes the quality, size and mining condition of a coal bed can be explored as well in two or three days by a gangway ten or fifteen feet long, as by working through it for a month or a year."?

A. That is simply erroneous. It might be applicable
906 in his day, when we had no large operations and did not care what the quality of the coal was, just so it would burn and supply the small necessities they had in those days.

Q. As a matter of fact, when Leslie wrote this book, had the coal measures of Pennsylvania been opened up to any considerable extent?

A. Not even to a percentage of what they are today.

Q. Is it true that at that time the industrial uses to which coal was put were rather limited as compared with today?

A. They were very much limited as compared with what they are today.

Q. And was coal at that time graded into fitness for different kinds of commercial enterprises?

A. No, sir; just roughly take the lumps, what you would term lump coal today; that was practically all that was useable.

Q. If that were true today, could these coal measures of the West be worked at all? A. No, sir.

Q. Have they gone back and rescreened, do you know as a matter of historical information where the old coal dumps in Pennsylvania have been rescreened and the coal segregated that had been thrown out years ago?

A. They have done so, and there has been a commission reported of late years that they should be rescreened again The Leslie book, as far as I understand it, was simply a little A, B, C manual for miners who had not had any technical education, and it is meant to give them general information without giving them the technical features of it. It is an introductory, elementary manual; it is not even a manual.

Q. Do you know any geologist, aside from Mr. Veatch,
907 who today regards Leslie as an authority on coal mining?

A. I don't know of one. I question if many even know of the existence of the book, unless it was just simply to run across it from these reports of the Secretary, quoting it. I cannot imagine where he ran across it.

Q. On page M-b 44 I questioned Mr. Veatch as follows after asking him about the largest coal measures or beds of which he had any knowledge of in the West: "Q. I did not ask

you about coal bearing rocks, but I asked you about coal, coal fields, coal deposits? A. Including any coal, all kinds of coal? Q. Any kind of coal, yes. All right. A. There is an area which is essentially continuous as a big, coal field, which includes part of Montana, North and South Dakota, which continues down into Wyoming and continues up into Canada, over a great belt there." Mr. Forrester, are you familiar with the coal field in question?

A. I am familiar with the whole territory, but there is no single field over that distance. It should be spoken of in the plural. There is no continuous zone, even, of the same geological horizon extending over that field where coal is found throughout that field, even collectively or individually as beds.

Q. Are there coal bearing rocks which extend over this area?

A. There are coal bearing rocks probably extending over that area with great, large tracts within them which have actually no coal. The idea that he has got, that he should have given there if he had been honest about it, would have been to say that you cannot correlate the coal beds, or rather, identify as the same beds the different coal fields beyond this
908 fact: in Canada we have the coal up in the Laramie, and as we go on through down to Old Mexico, passing through the entire mountain region of the United States, you will get coal at different geological horizons all the way down through from Dakota, and take any one of those fields, and it is of comparatively limited extent; the one edge may come close to the edge of another, or even overlap the edge of another, but as a continuous coal field, we do not have it as a continuous coal bed; it is preposterous even to think of it.

Q. On pages 51, 52 and 53 I questioned Mr. Veatch with reference to the existence of any strike faults along in this valley which might terminate this vein in depth. Can you determine, or can any geologist as far as you know, determine from what is exposed in that valley in that vicinity whether or not there are any strike faults there or not?

A. You cannot.

Q. Why not?

A. Because the valley is an erosion valley in the soft, Montana shales. There are no exposures of rock throughout the entire valley. If any fault took place or occurred in there the soft shale was easily eroded and covered by the debris of erosion so as to hide all evidence of a fault.

Q. Do you agree with this statement of Mr. Veatch found on page M-b 54: "Q. Now, then, you believe, do you, that you could in all cases determine the presence or absence of a

want in depth by the indications at the outcrop as prospected here? A. No, you could not; you could determine the probability of one. Q. The probability of it? A. Yes, sir." Do you agree with that?

A. Well, in the same way; I think he is perfectly right
909 in this respect: he is admitting there that there is a great variability on the outcrop, and the logical inference is that these irregularities are going to extend to the West as well as to the North and South.

Q. But is there any necessary connection between the exposure at the coal horizon and the existence of a want in depth on the coal seam?

A. Oh, absolutely no relation whatever.

Q. I show you now exhibit No. 310, and I want to call your attention to the following from Mr. Veatch on page M-b 81: "A. Well, we have used that term, Kemmerer beds, to include a group of horizons there, unless it is specifically specified. There are three that are worked in the northern part, but there is only one that I know of that is worked in the southern part. There is a group of beds very close together there, and the line on the map represents very generally all of the beds. He refers to the red line on exhibit 280. Are you familiar with the conditions described by the witness?

A. Yes, sir.

Q. And have you observed these three beds?

A. No, sir.

Q. Do they exist?

A. No, sir, they do not.

Q. What have you to say with reference to that statement?

A. There are, where there is the most continuous beds, and it is not continuous by any means—but following the one horizon, we get the Kemmerer-Cumberland coal. At places a coal in the form of an adventitious bed, comes another smaller bed about fifty feet above this horizon. At Kemmerer, what is spoken of by Mr. Veatch as a third bed, is simply a split of the Kemmerer-Cumberland vein by interstratified
910 sedimentaries, thickening it approximately fifteen feet.

Q. Now, I want to call your attention to this statement on page 83; "Now, I should explain there, that there is a mixture of coal that is not clear as we trace this bed north, the bed that is worked in No. 1 and No. 2 Cumberland, and going northward there in 32 on what seems to be the projection of that particular seam which is worked there, that one bed, that group, the prospect pits show no coal, but that there is a seam not very far above that, which contains five feet of coal." Do you get that?

A. There is not such a thing in there as that which we could see on the surface; simply it could not be there without our seeing it, because we were looking for it. We could not get any coal seam exposed on the surface there showing any indication of five or six feet.

Q. Now, going on, on page 90, the witness says: "Q. Then, in your judgment, in the upper or six foot bed the seam that you have been designating as the main seam, or is it that seam which you mentioned in your bulletin as fifty feet above the main seam? A. Well, this correlation makes it, I believe, the main seam." Are you familiar with those seams referred to in the question?

A. I cannot figure it out very well; I get all mixed up.

Q. I will just show you this. On page 83 you will observe the witness says: "That bed which is worked" and refers to the seam upon which the working occurs. On page 90 I asked him this question: "Q. Then, in your judgment is the upper or six foot bed the seam that you have been designating as the main seam, or is it that seam which you mention in your
911 bulletin as fifty feet above the main seam? A. Well, this correlation makes it, I believe, the main seam." Are you familiar with the statement made by Mr. Veatch in his evidence concerning that seam?

A. Yes, sir.

Q. Is there a contradiction between this and the statements which he made on page 83, and the further statement made on page 91, where he says: "My impression, from the data we have here, is that it is the main seam." Referring to the same shown in the drill hole No. 2, eighty-seven to ninety-three feet in depth.

A. He is entirely wrong there.

Q. I just want you to explain what contradiction there is, so that the record will get it.

A. There is a conflict there. In one case he calls the six foot bed the main seam; at another point he calls the six foot bed, the bed about fifty feet above the Kemmerer-Cumberland bed, and then he comes back again.

Q. Just indicate where he does that on the map, referring to the particular seams; they are confused.

A. Well, there is only one seam there; there is only one seam in that portion of the field which he speaks of.

Q. What seam is it? A. It is the upper seam.

Q. Does the main seam show down there at all?

A. No, sir, it is gone.

Q. Has he claimed the upper seam and designated it as the main seam where it is exposed in this drill hole?

A. He has taken in section 32 the upper coal, and called it the main seam.

912 Q. What is the relative position of the horizon of these two seams? A. Approximately fifty feet difference.

Q. Now, then, referring to exhibit No. 310, I want to call your attention to this evidence, on page M-b 93: "Q. Now, have you correlated the veins or seams in this hole No. 4? A. I have a mark here with I interpret to mean that I believed that the main seam there was absent through erosion. You see there is thirty feet of mud referred to here and I have marked it there. This, then, would be below; these seams would be entirely below the Kemmerer group that we have been talking about, these thin seams. Q. As I understand you, the erosion has carried away the main coal seam in the vicinity of the hole? A. Yes, that is my opinion." Do you agree with that? A. I do not.

Q. Do you agree that the main coal seam has been eroded away and is replaced with thirty feet of mud at that point?

A. It is not eroded away.

Q. Where is the main seam?

A. The main seam occurs about between four and five hundred feet east of the diamond drill hole.

Q. And in the diamond drill hole where is it?

A. In the diamond drill hole it would be about three hundred and twenty-six feet below the surface.

Q. So that, instead of being eroded away and replaced by thirty feet of mud near the surface, you think it is three hundred and twenty-six feet below the surface? A. Yes, sir.

Q. Have you made any mathematical calculations which demonstrate that that is correct?

913 A. Yes, sir.

Q. What is it?

A. I have made a rough sketch here by which the elevation of the top of the hole on the actual surface is found to be one hundred feet above the coal outcrop as exposed in a prospect hole which was put in to develop the No. 5 mine. Then, taking the average dip as obtained in that vicinity, which would be about nineteen degrees, and calculating where that bed on its dip would cut the drill hole, we find that it would be three hundred and twenty-nine feet by calculation.

Q. And by the actual work you say it was what?

A. It was three hundred and twenty-six feet.

Q. On page 87 we find this statement of Mr. Veatch: "Q. Oh, yes. But you do not mean to tell us, do you, that you can work commercially at a profit in a coal bed three feet, six inches wide in Wyoming? A. I think it might be done; it is very close to the limit, though." Do you agree with that?

A. I don't agree with him at all.

Q. Continuing, he says: "Q. Referring to the cost of mining and driving slopes and entries, do you know what that is? A. No. Q. Have you any idea? A. No. Q. Have

you any idea what it costs the Diamond Coal & Coke Company to mine a ton of coal at Diamondville? A. No. Q. Have you any idea that you could open up a mine in that vicinity and paying the same rate of wages and cost of other material, how much you could mine coal for? A. No. Q. You don't know that? A. No." Without knowing those factors, would it be possible for any man to express an opinion as to the minimum seam of coal that could be worked commercially at a profit?

A. Without having the ability to make your estimate as to cost, you could not; and if a man does not know the
914 general run of these things, he cannot pass an opinion upon what is workable and what is not workable coal.

Q. Do you know of any place in the Western country where such a coal seam is being worked commercially?

A. Oh, there may be a little country bank, just for the neighbors.

Q. I mean coal mining for the market?

A. No coal mine. The best answer to that is that at Castle Gate, where we have good, strong sandstone sixty to a hundred feet in thickness, no intervening waste and sandstone roof from fifteen to twenty feet thick, we have been carying on experiments for the last year and a half, trying to work coal four and a half feet in thickness and are just on the point of shutting down; we find it impracticable even there. We have spent something like one hundred and fifty thousand dollars in experiments.

Q. Now, Mr. Veatch, when upon the stand, was asked by counsel for the Government to give the vertical depth of the different points between the land in controversy and in doing so he used a map which has been introduced here in evidence and marked exhibit No. 311. Have you examined the contours shown on that map? A. Oh, yes, in a general way.

Q. On page 99 I asked Mr. Veatch if, in order to get the depth of the coal, he did not have to assume first, that the coal underlay this ground, and second, that his contours correctly showed the elevations at particular points. Let me ask you, is there any way in which he could give it without assuming those conditions? A. No, sir, there is not.

915 Q. And is there any state of fact upon which he could predicate answers to those questions without making assumptions?

A. He could only give an assumption based upon assumptions.

Q. Is there anything in that valley from which Mr. Veatch could correctly draw his contour lines as shown on exhibit No. 311?

A. Only upon the assumption that these dips continued through regularly, and assume that these dips are there; if

such an assumption is allowed, then he can draw his lines through those points, but that would be an assumed line from assumptions which would ordinarily be assumable in a general way, but not in an economic way.

Q. Have you observed his contours on exhibit No. 311, which show waving, irregular line, supposed to be following the elevation from the height of this country to seven or eight thousand feet below the level of the sea?

A. No. I find his contours marked from zero to three thousand, from three thousand to five thousand, and over five thousand. Are those the contours to which you refer?

Q. Yes, and the intermediate ones. Now, how are those contours prepared or estimated or arrived at?

A. Well, as far as I know, he has taken and assumed some dip; whether it is the general dip of the entire area or particular dips as particular points along the line, of course I don't know as to that. They could be arrived at in that way. It is all an assumption.

Q. Is there any fissuring there which discloses the strata so that these dips can be measured at intervals with accuracy?

A. No, there is not. You would pass over a distance of over three miles without being able to get one dip to measure.

916 Q. Do you know what an alkaline loam is?

A. I am not familiar with soils.

Q. Do you know what white alkali is?

A. Well, there is a white alkali and a black alkali; one is a sulphate, and the other is a carbonate, but just which is which I don't remember.

Q. You don't claim to be able to qualify on soils?

A. No, I do not.

Q. Would you say it would be necessary to know what alkali was in order to do so?

A. Oh, yes, if I wanted to pass on the soil, I would have to look up the subject to see just which is which, and be able to identify them.

Q. Referring to coal mines generally, on page M-b 105 Mr. Veatch says: "I was simply going to add that mines are being worked now in parts of the world to a depth of five thousand feet." Do you know of any such mine?

A. I have no knowledge of that depth any place in the world, and since that point has come up in that testimony I have been exerting myself to find that out, and I cannot find out any such depth.

Q. Are you familiar with the depth given in the journals of your science which are regarded as authoritative?

A. Oh, yes. I made up list of the deepest shaft, which was compiled for one of our mining journals a number of years ago,

and part of it later, and that same table was quoted as late as 1896 and no change made in it, so that in the published material I do not know of a solitary mine even approaching that depth.

Q. Where are the deepest mines?

917 A. In Belgium, I believe; either Belgium or France. In Belgium.

Q. What are the deepest recorded there?

A. The deepest one recorded was an exploration shaft, now abandoned, which reached a total depth of thirty-four hundred and eighty-nine feet. The next deepest one was thirty-four hundred and eleven, which is also abandoned.

Q. In the testimony of Mr. Veatch he said that in his opinion a vertical depth of five thousand feet would be the limit of what should be properly classified as coal lands for Governmental purposes. Do you agree with that statement?

A. I do not agree with it. It is all foolishness.

Q. On page 106 Mr. Veatch said that he thought it would be practicable to sink to a depth of three or four thousand feet in this field for the purpose of getting the coal.

A. It is entirely impracticable.

Q. In order that we may have it at one place in the record, I want you to give the dip of the coal from one extremity to the other as briefly as you can, on this horizon between Kemmerer and Cumberland, as measured by you.

A. Do you want it from north to south or from south to north?

Q. Well, begin at either end and give the legal subdivision in which the measurement was taken.

A. I will give the sections from north to south; that may be advisable. In the southeast quarter of the northwest quarter of section 24, township 21 north, range 116 west, dip, fourteen degrees to the west. A point right near the northeast corner of the southwest quarter of section 24, township 20 north, range 116 west, dip, twenty-three degrees.

918 Q. Are these dips all to the west?

A. Yes, sir. Near the east line of the southwest quarter of the southeast quarter of section 17, township 20 north, range 116 west, twenty degrees to the west. Near the center end line of the northeast quarter of the southwest quarter of section 29, township 20 north, range 116 west, dip, twenty-eight degrees to the west. Three hundred feet south of that last point the dip is twenty-two degrees to the west. Near the northeast corner of the southeast quarter of the southwest quarter of section 29 the dip is twenty-four degrees to the west. On the south line of the same quarter section the dip is thirty-seven degrees to the west. Near the north line of the southeast quarter of the northwest quarter of section 22, township 20

north, range 116 west, the dip is forty-three degrees to the west. Near the north line of the southeast quarter of the southwest quarter of section 32, township 20 north, range 116 west, the dip is thirty degrees to the west. Near the center of the northeast quarter of the southwest quarter of section 5, township 19 north, range 116 west, the dip is twenty-five degrees to the west. Near the center of the northeast quarter of the southwest quarter of section 8, township 19 north, range 116 west, the dip is nineteen degrees to the west. Near the south line of the southeast quarter of the southwest quarter of section 8, township 19 north, range 116 west, the dip is seventeen degrees to the west.

Mr. Kelley: You may take the witness. I will state there is possibly one other matter on which I may wish to ask Mr. Forrester some questions, but that is as far as we are
919 ready to proceed at this time.

Cross-Examination

By Mr. Birch:

Q. How old are you?

A. Forty-four years of age, nearly.

Q. When did you come to this country?

A. Along about 1887 or 1888, somewhere thereabouts.

Q. What was the furthermost east state in which you first began your coal observations or labor?

A. Pennsylvania.

Q. What part of Pennsylvania? A. Clearfield County.

Q. Near Emporia Junction?

A. No, up about Snowshoe City and Peale City.

Q. Your work there was in the anthracite fields?

A. No, sir.

Q. Bituminous? A. Yes, sir.

Q. How long did you remain there?

A. I should judge about six months.

Q. In what capacity did you work?

A. Well, the mines were not working very much, but I was spending the time with Mr. Thomas Blythe, who had been in partnership with my father and working for my father in Scotland in mining, and he gave me every opportunity of examining mines there, and later I went down to where they were building some coke ovens and investigated that matter.

Q. Where was that?

A. Between Peale City and Snowshoe City.

920 Q. Where did you go from there, what state?

A. I went to Kansas City, Missouri.

Q. Did you operate in the coal fields in Missouri?

A. No, sir.

Q. Where next did you operate in coal?

A. In Kansas. I went down to spend the winter there to study the fields, and I had just worked through the fields there; sometimes I would be surveying, sometimes working throughout the mines, just to get a working knowledge. It may be well to explain here why I came to this country.

Q. It is not necessary.

A. Just to explain a little more fully.

Q. Your counsel will give you opportunity on redirect examination if you need it, if it is material; I do not think it is for our purposes. If it is for yours, he will give you opportunity later on. A. Thank you.

Q. In those fields in Kansas, of course, all the coal was bituminous? A. Yes, sir.

Q. No lignite? A. No, sir.

Q. No semi-bituminous? A. No, sir.

Q. No semi-anthracite?

A. No, sir; there was some down near Fort Smith, Arkansas.

Q. You had no outcropping? A. We had to sink pits.

Q. Such outcroppings as appear along the hills here were not common there? A. No, sir.

921 Q. You had to find your fields without outcroppings there? A. Yes, sir.

Q. By actual tests, discovery?

A. We usually found it within about six or eight feet of the surface.

Q. But no surface indication?

A. Well, I have no doubt but what there would be in some of these little gulches or courses throughout the country; undoubtedly that was the way it was first discovered.

Q. How long did you stay in Kansas, and what part of Kansas were you in?

A. Around Crawford County, around Girard, Midway, Pittsfield and Pittsburg.

Q. Southeastern Kansas? A. Yes, sir.

Q. Near Coffeeville and the lead mines now near Joplin?

A. No, not far from Webb City and Joplin.

Q. How long did you stay there to work?

A. Probably just about six months.

Q. Then where did you go? A. I came to Utah.

Q. What year did you come to Utah?

A. I don't remember. That would make it somewhere about 1889 or 1890; somewhere thereabouts.

Q. All the fields in the West, substantially, are bituminous or lower grade, aren't they?

A. We have from the anthracite to the lignite.

Q. Where do you find anthracite?

A. In Colorado and Utah and New Mexico.

922 Q. In commercial quantities? A. Yes, sir.
Q. Anthracite coal? A. Yes, sir.
Q. What part of Colorado?
A. The anthracite mesa, and Ruby Mountains.
Q. What county? A. Gunnison County.
Q. There are no very extensive beds of anthracite, are there?
A. There are very extensive mines.
Q. There are? A. Yes, sir.
Q. Where does that coal find a market?
A. All throughout west of the Missouri River, in all the Western territory here.
Q. Who operates those mines?
A. The Colorado Coal & Iron Company.
Q. Were you ever in their employ? A. No, sir.
Q. Were you ever opposed to them in getting land or in any other purpose, in competition with them, I will say.
A. No, we have not been in competition with them.
Q. Do you remember an instance testified to before the Interstate Commerce Commission where there was a competition between the Colorado Coal & Iron Company and the Utah Fuel Company?
A. I don't know of any testimony before the Interstate Commerce Commission; I am not familiar with it; I don't know what was in it.
Q. Are you the party who was represented by a witness
923 there of the name of Captain Crawford or something like that? A. I don't know.
Q. There was a party there who was represented as having come into the territory where the coal lands were procured as a Mormon Elder under an assumed name. Were you that party?
A. I don't know. I never passed as a Mormon elder anywhere.
Q. Now, I am not joking. As a matter of fact, operating to get lands for the Utah Fuel Company.
A. I have not passed as a Mormon elder anywhere, therefore I cannot tell whether that had reference to me or not.
Q. Have you ever passed there under any assumed name?
A. I don't know where you are speaking of; I don't know what place.
Q. In Colorado, in attempting to get land for the Utah Fuel Company.
A. No. I don't think that you will find anywhere that I ever passed under an assumed name in Colorado.
Q. You have no recollection of such an occurrence as that which I speak of, where you personated a Mormon Elder?
A. No, sir. There is no time in my life at which I have personated a Mormon Elder.

Q. Now, you began operating, principally, in the West in Utah? A. Yes, sir.

Q. For the Pleasant Valley Fuel Company?

A. Not the Pleasnat Valley Fuel Company.

Q. In connection with Major Bird? A. No, sir.

Q. Didn't you have anything to do with Major Bird?

A. Oh, yes; Major Bird has been a friend of mine for years and up to the time of his death.

924 Q. Didn't you and Major Bird act together in procuring lands for the Pleasant Valley Fuel Company?

A. No, sir.

Q. Weren't you the geologist for the Pleasant Valley Coal Company? A. Yes, sir.

Q. Wasn't he at the same time their attorney?

A. Not to my knowledge.

Q. Well, at a later date, the Utah Fuel Company, were you their geologist and he at the same time their attorney?

A. No, sir. I was their geologist, but never to my knowledge has he been attorney for the Utah Fuel Company or the Pleasant Valley Coal Company.

Q. Was he employed in any capacity for either of them?

A. I dont know; not to my knowledge.

Q. Are you the Robert Forrester who is mentioned in the bills in equity filed against the Pleasant Valley Coal Company and the Utah Fuel Company in the District of Utah Federal Court? A. I believe I am.

Q. And you are also connected with certain other litigation there, are you not, for instance, in connection with Mr. Elroy N. Clark and Mr. Alexander Cowie and other parties?

A. Yes, sir.

Q. In what is called—well, the indictments there?

A. Yes, sir.

Q. You are one of the parties? A. Yes, sir.

Q. And you have never read these bills in equity in the

925 cases against the Pleasant Valley Coal Company and the Utah Fuel Company that are on file there now?

A. Not through.

Q. Well, you know you are mentioned as a party?

A. Oh, yes, I know that.

Q. I drew the bills; that is the way I know.

A. Yes, sir.

Q. How long were you engaged for those Companies; how long have you been in their employ?

A. Well, I have been intermittently in their employ; I have done work for them and under retainer, done work for them at different times, but at the same time I take work from all other parties who wish to employ my services.

Q. In other words, your work has been mainly in the matter of examining lands which are intended to be procured from the United States Government? A. No, sir.

Q. Not at all?

A. No, sir. The Company has not obtained any land from the United States Government.

[Q.] You mean the Utah Fuel Company, the Pleasant Valley Coal Company or any other company that I have been connected with.

Q. Well, perhaps, not directly, but by means of what are called dummy entrymen?

A. Directly or indirectly.

Q. They never procured lands, from the United States Government, you say?

A. Yes, that is what I say.

Q. I dont speak now of state selections, cases of that kind as indirectly from the Government.

926 A. I dont care what law you are referring to; they have not obtained lands that way.

Q. Never? A. Never.

Q. Neither company? A. Neither company.

Q. How long have you been engaged for them, intermittenly as you term it?

A. Well, from the time I came into Utah, about 1889 or 1890 for the Pleasant ValleyCoal Company, until I was appointed United States Land Inspector for Utah. During that time, which was, I believe, in 1892 that I was appointed, and in 1895 the appointment terminated—after 1895 I opened up an office of my own for general practice, and I have not been regularly employed by either company since that time to the present moment.

Q. Your labors have altogether been, then, in Utah since you came there; your professional labors have altogether been in Utah? A. No, sir.

Q. They have extended into Colorado?

A. They have extended into Canada on the north and Old Mexico on the south.

Q. In what capacity are you connected with the Calumet Fuel Company of Colorado?

A. To make a geological survey of certain territory.

Q. Is that all? A. That is all.

Q. To what extent were you connected with the same company in New Mexico?

927 A. In the same way; the field extended on both sides of the line.

Q. In the Durango District?

A. In the Durango District.

Q. In the Durango coal field?

A. Yes, sir.

Q. And you have become in some manner a defendant or co-defendant with others in both of those states in actions and indictments? A. What states?

Q. Colorado and the territory of New Mexico.

A. Well, I think so; that is all I can say about it.

Q. When was it that you were superintendent of the Diamond Coal & Coke Company?

A. In 1894 or 1895, I think it was.

Q. While you were State Mine Examiner of Utah?

A. That was the first work I did after the termination of my office.

Q. How long were you engaged for that company?

A. Nine months to a year, somewhere thereabouts; I dont remember.

Q. That was before the present ownership of its stock by the Amalgamated? A. Yes, sir.

Q. Under the old company?

A. Under the old company.

Q. You helped to open up some of these mines, didn't you, for the Diamond Coal & Coke Company?

A. I opened up the No. 1 mine.

Q. You prospected that region quite thoroughly, didn't
928 you, for coal?

A. Yes, sir.

Q. You found it a very bad region, didn't you?

A. I found in the immediate vicinity of No. 1 and down to what they call the old Church opening, I thoroughly prospected from the vicinity of No. 1 mine down to the vicinity of what they called the old Church opening, which is about half a mile, I should judge, south of No. 2 Diamondville mine, and found it good coal.

Q. Was that along the outcrop? A. Yes, sir.

Q. What thickness of coal?

A. About eight or ten feet; ten or twelve feet probably.

Q. Where did you find it?

A. From Jenkins Draw about half a mile above the present mouth of No. 1 mine, from that south to the old Church opening.

Q. When was the railroad line built in there, the branch line from Kemmerer south or from in the neighborhood of Kemmerer south? A. I dont know.

Q. Was it built then? A. No, sir.

Q. This was in 1894, you say, or in 1895?

A. Yes, sir.

Q. You dont know when it was built?

A. No, sir. There was an old branch in from Bell's Pass into the Adaville mines at that time, which had been built by the Adaville people. I dont know whether they had used that spur or not in the extension of this; I have never been up in that vicinity since.

929 Q. At that time, then, mine No. 1 was not anywhere near the railroad, was it?

A. Yes, it was right on the railroad.

Q. What railroad, the Oregon Short Line?

A. The Oregon Short Line.

Q. At the town of Diamondville?

A. Diamondville, yes, sir.

Q. Were there any parties prospecting in there and opening up mines in that general valley or range? A. No, sir.

Q. The Diamond was the pioneer? A. Yes, sir.

Q. How soon afterwards did Quailey and the Kemmerer people begin?

A. Not until after I left there.

Q. And the Cumberland, that is, the Union Pacific people?

A. Not until after I left there.

Q. You knew nothing of their mines except by hearsay?

A. That is all.

Q. Well, did you go back at any time?

A. Oh, yes, I have been back once or twice.

Q. Have your services ever been called professionally back there to see these mines? A. Yes, sir.

Q. By whom?

A. Well, by Mr. Snedden. He asked me to go up and help him put out a mine fire.

Q. But not by the Kemmerer or Union Pacific people?

A. No, sir.

Q. When was it that he called you back?

930 A I dont remember what year it was; undoubtedly they could tell that very closely; it must have been about 1901 or somewhere therebouts.

Q. How long were you there then?

A. I probably was there between two and three weeks.

Q. Did you give him opinions then in regard to land in that region as coal land?

A. No, I did not.

Q. Did you know then that he contemplated taking up any land for his company? A. No, I did not.

Q. Did you at any time know of his testing any land there for coal? A. I did not.

Q. In that vicinity? A. No, sir, I did not.

Q. In the immediate vicinity of the lands in controversy, or parts of the lands in controversy here, these brick marked lands on this map, No. 280?

A. I did not; I dont know of any.

Q. Did you ever state to anybody that he had tested all of those lands in that vicinity for coal?

A. I did not.

Q. Did you ever say to anybody that he had tested all of the lands in question or involved in this suit for coal?

A. I never did.

Mr. Kelley: I wish to object to the question upon the ground that it is an improper question for the reason that no foundation has been laid as to time, place, person and circumstances.

Q. Did you ever have a conversation with Frank
931 M. Foote—do you know him?

A. I know him, yes, sir.

Q. Do you know Mr. Kingston?

A. No, sir, I do not.

Q. Who was the register of the Land Office here at one time? A. No, sir, I dont know him.

Q. Did you ever see such a man?

A. I dont know.

Q. Now, since the commencement of this suit did you state to Major Foote, Frank M. Foote, in the Land Office in this town, in the presence of Mr. Kingston, the former register of the United States Land Office, that Mr. Snedden had fully tested all of the land in this vicinity and these lands in controversy?

A. No, sir, I never did, and anyone that says I did tells a lie.

Q. Did you state to them that Mr. Snedden told you?

A. I did not.

Q. On such an occasion?

A. No, sir, I never did.

Q. Did you remember having conversations with Major Foote in respect to this ligitation and these lands in question at the Land Office in this town since the suit has begun?

A. Since this suit began?

Q. Yes.

A. I was subpoenaed to appear in this suit by the Government and after I was called on—

Q. Wait a moment. I dont care about that. Now, have you since this suit commenced—

A. I haven't answered the question yet.

932 Q. I know it, and I want to get back to the question.

The Master: You may answer yes or no.

A. Well, since the suit began I have had conversations, but have not told—

Q. Now, wait a moment, that is enough. You had conversations with him; that is enough now. Now, I will ask you the next question. Did you, on that occasion, state to Major Foote that Mr. Snedden had told you—stated to you that he had tested for coal all the lands involved in this suit?

A. No, sir, I did not.

Q. Now, if you wish to add you can say what you did say to Major Foote.

A. Well, I told—I don't know whether it was Major Foote, I think it was Mr. Burke, wasn't it, that I was talking with?

Q. No, not at the time I refer to. Don't you know Major Foote?

A. I know Major Foote, but I came over her and I was taken up, I think, to Mr. Burke and Mr. Wallace.

Q. That was not the occasion I refer to.

A. Well, there is some other witness about here somewhere.

Q. Do you remember the occurrence of Mr. Snedden entering the land in question in this suit with scrip?

A. I never knew that he had entered them until I came up in response to this subpoenae, and was then told by Mr. Burke or someone around the office here.

Q. Do you remember having met Major Foote and Mr. Kingston, then register of the Land Office here, met them here in the Land Office on an occasion about 1901; do you remember such an occurrence as that?

933 A. I have not been in Evanston since 1897 or thereabouts until I was called here by a subpoenae by the Government to attend this suit as a witness.

Q. Now, then—

A. —therefore I could not have talked and could not remember ever having had any conversation with Frank Foote or anyone else in this office or in this town.

Q. Then, you state that you did not have a conversation in or about the year, 1901, in the Land Office in this city with Major Frank Foote and Major Kingston who was then register of the Land Office, concerning Snedden's land or entries of land?

A. I absolutely deny that I ever had any conversation in this town in 1901 with Frank Foote or any other person, because I could not be in two places at one and the same time, and I was not in Evanston.

Q. And you did not state to Major Foote on such an occasion that Mr. Snedden had told you that he had tested all these lands in question in this suit, that is, describing these lands up and down here, before he made an entry on them?

A. I did not state such a thing.

Q. Well, that is all that it is necessary to answer. If you want to explain further, later on you may. Now, Mr. Forrester, who accompanied you on the 6th of April, was it, of this month, when you first began your examination of these lands?

A. Mr. Hopkins and Dr. Talmage.

Q. Was it on the 6th of April, Sunday, the 6th of April?

A. We left Salt Lake on Sunday, April 5th, and arrived at Diamondville about 2 A. M., April 6th.

Q. Now, what did you do first after you arrived there?

A. Went to bed.

934 Q. When did you get up?

A. Oh, about seven or eight o'clock in the morning.

Q. Of the 7th? A. Of the 6th.

Q. Then, you must have arrived there on the 5th, d[illegible] you? A. No, sir, I arrived on the 6th.

Q. At two o'clock in the morning? A. Yes, sir.

Q. And you got up about seven or eight? A. Yes, sir.

Q. Where did you go?

A. We got on horseback and rode down as far as the waterfall.

Q. Who do you mean by we?

A. Dr. Talmage, Mr. Hopkins and myself.

Q. Are these gentlemen here now? A. Yes, both present.

Q. Were there anybody else present with you?

A. Yes, sir.

Q. State the others? A. Mr. Shurick.

Q. Is he here? A. Yes, sir.

Q. Who is he; what is his capacity or standing or calling in life? A. A mining engineer.

Q. Who else was there with your party?

A. That is all.

Q. During your investigations at any time was Mr. Snedden there?

A. He was only with us part of one day; he was with

935 us occasionally; he was in the mine as our guide and one thing and another, and upon the 10th, I think it was, he met us about, I should judge, about ten o'clock in the morning and accompanied us part way, but he was in a buggy and he could not follow us all the way; he could just see us once in a while.

Q. How did you come to go up there?

A. Mr. Kelley, an attorney here, came to my office, or rather called me to an office in Salt Lake, and retained us to go up and examine the lands in controversy.

Q. Did you have any communication with anybody when you started in on the work and after you reached there at Diamondville? A. Before I started?

Q. Before you entered upon the work and after you arrived there.

A. Only the personal meeting with Mr. Kelley in Salt Lake.

Q. Mr. Kelley was not up there?

A. Mr. Kelley was at Salt Lake.

Q. He was not at Diamondville? A. No, sir.

Q. And you did not see anybody connected with the Company after you arrived there at Diamondville, did you?

A. I saw Mr. Snedden.

Q. That is what I want to get at.

A. Oh, yes; I see him occasionally, in fact, I meet him often.

Q. Before you entered upon the work?

A. Well, I claim I entered upon the work when I left Salt Lake.

Q. No, but before you entered upon the work of inspection of these mines and this country, the investigation of this
936 territory at that time, who did you see at Diamondville?

A. I cannot quite get at what you are trying to reach.

Q. Now, didn't you see Snedden after you got there and before you went to work; after you got to Diamondville?

A. Well, I don't remember whether I saw him before the four of us started.

Q. Did you see anybody in the employ of the company?

A. Yes, I saw Mr. Shurick.

Q. That is Mr. Shurick, the young gentleman here?

A. Yes, sir.

Q. And he accompanied you? A. Yes, sir.

Q. Was it he who gave you detailed instructions?

A. No, sir; I got no detailed instructions.

Q. Never got any?

A. No, sir. We went in there to make our examination and we made it without reference to anybody's instructions. We would not discuss the matter with any of them. We wanted to go in there and make our notes and make them absolutely without any interference or any foreknowledge of the district. After we got through, then we were ready to discuss it, not until we had made our notes.

Q. When Mr. Kelley came there, what did he tell you that he wanted you to investigate along there?

A. He told us to go up and examine the land in controversy and its relationship to the coal and see whether it was coal land or not coal land.

Q. What about the mines?

A. The mines were only additional information to apply to the land in controversy.

937 Q. What about the test pits along the outcrop?

A. The same applies to that.

Q. Now, listen; don't begin to answer my questions until I get them put fully, because the reporters cannot take two at the same time on the record. A. No, that is not easy.

Q. Now, take your time, you know; we will get along all right. Now, you did not understand my question. Mr. Kelley then did not give you to understand that you were to go over the outcrop in particular? A. Not in particular.

Q. At all?

A. It was left to us; he did not say to do it or not to do it.

Q. And he did not tell you to go into the mines at all?

A. No, sir, he did not.

Q. He did not tell you to go on the lands involved in this suit? A. Yes, he told us to go on and examine the lands.

Q. Did he give you a description of them?

A. Yes, sir, he gave us this map which I have been using here.

Q. He gave you that map? A. Yes, sir.

Q. And that was your only guide in your work?

A. That was our only guide in our work.

Q. What did he say to you?

A. To go up there and examine the lands in dispute with reference to whether they were coal lands or were not coal lands.

938 Q. So as qualify yourselves?

A. So as to qualify as a witness if I found matters in such a way that I could do so.

Q. In other words, if you found matters as they wanted them testified to, you were to testify as a witness?

A. Certainly.

Q. Then, from that time until you completed your labors, your only guide was that map?

A. Oh, no; that is what I had to start with.

Q. Well, what person guided you?

A. Well, as I told you Mr. Shurick guided us and Mr. Snedden guided us upon the request of ourselves, to see certain things, different things we wanted to get in, after going over the land—

Q. Never mind now.

Mr. Kelley: I think the witness has a right to explain.

Mr. Birch: But not to make stump speeches. You will have time.

Mr. Kelley: We will have it now with the Master's permission. You cannot cut a witness off when you have assumed something which makes him state what is not a fact.

Mr. Birch: What their intentions were and what laudable ambitions they had cuts no figure at this time in this controversy; I am simply inquiring into—if you desire to rule upon

that question—who guided him and what they told him, not what his ambitions were nor how pure motives he had.

939 We have no use for that at this time, but Mr. Kelley may have use for it on redirect examination. I am only inquiring who guided him and what they told him. He is not entitled to a sermon or a stump speech in explanation.

The Master: No, I don't think you have to have a stump speech, but I think he is entitled to explain why he asked him to guide him.

Mr. Kelley: In order that the record may show the position of the matter, and without desiring in the least to have Judge Birch listen to a sermon or a stump speech, but commending a lesson on evidence to his consideration, I wish to suggest to your Honor that where the direct question is asked, what guidance this witness had, and the witness has stated the persons who guided him, in order to meet the inference which Judge Birch would attempt to draw from the statement, nothing could be more competent than for the witness to state what sort of guidance he requested from Mr. Snedden and where Mr. Snedden took him. Now, he has said that Mr. Snedden, at our request, guided us to a few places where—and then Judge Birch stopped him.

Mr. Birch: Well, he can go on. We are spending more time and energy than I desire to spend on this particular point. Say just what you like; give him just what instructions you desire.

The Master: I think he is entitled to explain.

By Judge Birch:

Q. Go on and tell your story; tell all you want to.

940 A. I can make my speech now, can I?

Q. Yes, make your speech just as long as you choose; tell it all; I wont interrupt you again.

Mr. Kelley: Make it just as short as you can.

A. We took the mine map and decided for ourselves what places we wanted to see in the mines, and requested Mr. Snedden or Mr. Shurick to guide us to those places. Mr. Shurick was with us part of the time, and Mr. Snedden was with us occassionally.

Mr. Birch: I dont want this at this time. Must I be forced to have it whether I want it or not?

The Witness: When we were going over the land we asked Mr. Shurick to show us one or more corners by which we could identify the land ourselves, and after that they were simply

company for us, more than guides; they were not guides as soon as we got out position from the corners.

Mr. Kelley: That is enough.

Mr. Birch: Oh, go ahead with the examination, gentlemen; I will not interrupt you again. You may go ahead and take all the time you want; this is not my examination.

Mr. Kelley: Dont get captious, Judge Birch.

941 Mr. Birch: I am captious. I am not accustomed to this sort of treatment.

The Master: Proceed with the examination.

By Mr. Birch:

Q. Who took you to see those pits?

A. There was no one took us to see those pits. When we got the corners of the land we immediately came east to the coal horizon, got on that coal horizon and rode along it over its complexities on the surface, and followed it right through and did not ask any questions about it.

Q. Did anybody show you where they were, these old holes?

A. No, sir; we kept right on the coal where the holes should be, and we took everything as we were going along.

Q. You did not examine anything but these old prospect holes as you went along there, did you?

A. We observed every prospect hole, every natural exposure, everything that was in our path along that horizon; we passed by nothing and recorded everything, good, bad and indifferent.

Q. How long were you engaged in that work?

A. It took us one day upon the crop; it took us one day in No. 1 mine and one day in No. 2 mine and one day in No. 4 mine and one day on the general geology.

Q. You commenced on the 6th?

A. We commenced work on the 6th, and took the general geology down as far as the water-fall. On the 7th we were in the saddle all day; on the 8th we were in No. 2 mine and on the 9th, in the Diamondville No. 4, and on the 10th we were going over the involved matters and the outcrop or
942 horizon to Diamondville, and on the 11th we were out on the outcrop horizon to Kemmerer, and on the 12th I was hunting up all the information that I could find in the way of maps in the office, and left Diamondville at 5-55 P. M. on the 12th, and arrived in Salt Lake on the 13th about 8-30 A. M.

Q. Did you learn on the 6th from anyone who had opened these prospects, as you call them, or these pits?

A. No, sir; not all of them; I did not ask about them.
Q. Did you as to some of them? A. Yes, sir.
Q. Whom did you ask?
A. Whoever happened to be around; we would make a general inquiry, and sometimes it would be one and sometimes another who would be able to tell us.
Q. Was there a considerable party with you?
A. No. On that day that we were on the outcrop going up that outcrop horizon, Mr. Shurick was there, he rode in the party and Mr. Sales rode in the party; he was gone three or four hours—and Mr. Snedden and Mr. Whyte were in a buggy, but they could not follow us; they just had to go out in the valley and drive where they could get a road, and once in a while when the coal horizon would come adjacent to the road or across the road, they might be there at the same time we were; we rode rapidly.
Q. They did not point out any of these natural pits or artificial pits?
A. No, sir; we would not allow it.
Q. You just hunted them yourselves?
A. Yes; we wanted to be entirely unbiased.
943 Q. Now, as to these vertical sections that you made or these sections that you made and read here respecting these prospecting holes, you made the minutes for them, did you?
A. Yes, right at the time they were measured.
Q. How long a distance did you traverse that day, approximately? A. About twenty miles.
Q. Did you get clear down to section 17, township 19 that day?
A. We went down to 17, yes, sir.
Q. Did you go through 17? A. No, sir.
Q. And you commenced on what section?
A. About 24; the town of Diamondville is somewhere in 24, I think, somewhere about the crossing there.
Q. That is in town 21, isn't it, or town 20?
A. It is somewhere in here, about.
Q. That would be in town 21.
A. Well, I dont see any figures anywhere.
Q. This is town 20; that begins here?
A. Well, it is down here, about; that is 21.
Q. You travelled about 20 miles?
A. Yes, sir.
Q. And you didn't find anything that looked good to you during that whole distance, as to coal? A. Yes, sir.
Q. Whereabouts did you find that?
A. I found fine coal here and here and at Diamondville.

Q. How was it down through there?

A. It was pretty poor; it was worthless.

944 Q. Whereabouts was it where you found the good vein you spoke of?

A. I found a twelve foot vein here, close to Glencoe.

Q. On 17? A. Yes, sir.

Q. And the dip over here toward section 18 was how much?

A. The dip measured in No. 4 mine at different parts of No. 4 mine were from twenty-one to twenty-two degrees; in No. 4 mine, which is right above.

Q. You did not take the dip—

A. At or near the southeast corner of the southwest quarter of the southeast quarter of section 17 the dip was twenty degrees.

Q. Now, that was that point there that I pointed to on the map with my finger? A. Yes, sir.

Q. That was where you found the twelve foot vein or seam of coal? A. Yes, sir.

Q. Now, have you any sort of idea how old that hole was?

A. No, sir.

Q. Did it look old?

A. Yes, fairly old; I don't know; you can't tell after two or three seasons how old a hole is.

Q. If that hole had been made there as early as 1900 or 1901— A. Oh, I couldn't tell that.

Q. Well, knowing what you did in regard to that, would you be willing to testify that the land on section 18 was essentially non-mineral in character.

945 Mr. Kelley: We object to that.

Q. Listen to me. I want to call your particular attention to the [work] essentially, and ask you if you could give a definition of that word?

Mr. Kelley: We object to that on the ground that it is immaterial under the law; that there is no law which requires land to be essentially non-mineral in order to take it up as agricultural.

Mr. Birch: I suppose you know that Mr. Snedden made an affidavit that it was essentially non-mineral.

Mr. Kelley: Suppose he did, but I don't think that makes any difference.

Q. Now, can you give me a definition of the word, essentially.

A. Well, I don't know that I can give you exactly the dictionary definition.

Q. Give me your understanding of the word, essentially.

A. Well, that it was to all intents and purposes.

Q. Something somewhat synonymous with necessarily, would that be proper?

A. Essentially and necessarily do not mean the same.

Q. Isn't it somewhat synonymous with necessarily?

A. No, I don't think so. It would rather likely, probable.

Q. Well, I will put the word in that form. After making measurement or whatever it was, investigation, in that
946 pit, would you be able to say that the land on section 18 was essentially non-coal bearing or non-mineral in character?

A. I should say that I would feel justified, and that anybody else would feel justified in stating that it was non-mineral without any qualifications.

Q. Why?

A. Because our land laws require the discovery of mineral and that is our guidance; that is the only thing we have to guide us, is the land laws.

Q. Never mind the land laws; I am not speaking of them; I am speaking of the actual fact or the geological deductions or anything that enters into it, irrespective of the land laws; that may be a question of law for the Court to determine. Now, I don't want you to attempt to determine that; I want you to say whether as a geologist—

Mr. Kelley: We object to that.

Mr. Birch: I want to put the question.

Mr. Kelley: Well, I don't know that we have to listen to stump speeches any more than you have.

Q. I want to ask you as a geologist, as a man expert, as to coal mining and coal lands, not with reference to anybody's definition, but your own knowledge and experience, would you be willing to swear after having seen and examined and measured that point, that the land in section 18 to the west of that, beginning about half a mile or three-quarters—
947 A. Three-quarters, fully.

Q. Well, three-quarters, fully, at the nearest point, and extending a mile and three-quarters, were essentially non-mineral land? A. Yes, sir.

Mr. Kelley: Before you answer I wish to make an objection. I object to that, first, because the question is argumentative and improper in form; second, because the term as used in the affidavit of Snedden, which it is the purpose of counsel to dispute, was used under and by virtue of the requirements of the land laws, and the term as used in the affidavit had

reference to the classification of the land under the land laws. We object to it further for the reason that it is immaterial what a geologist might predicate an opinion upon, because the law has been interpreted by the United States Court, which has laid down the doctrine that that has nothing to do with it. We object to it further upon the ground that under the laws of the United States land is essentially non-mineral until it has been shown to be mineral by virtue of the discovery of metals or deposits within the meaning of the statutes; that mineral land is the exclusion from the general class of non-mineral, and the non-mineral is not the exclusion from mineral.

Mr. Birch: Now, we have the objection and we have the answer of the witness. May we go on now?

Mr. Kelley: Well, how do you feel about it?

948 Mr. Birch: Well, if you have it all in, we will go on.

Q. Now, will you say, Mr. Witness,—I will put it to you again—from your knowledge and experience as a geologist—

Mr. Kelley: We object to the repetition of this page and a half question as being merely an encumbrance of the record.

Mr. Birch: How do you know what question I am going to ask? Are you a mind reader?

Mr. Kelley: You said you were going to put it to him again.

Mr. Birch: I will put it in a different way, perhaps. I don't know how you can object before I get the question put.

The Master: Go ahead and put your question, Judge Birch.

Q. You have testified here to long experience and study as a geologist? A. Yes, sir.

Q. Long experience as a practical mining man?

A. Yes, sir.

Q. Now, taking your knowledge and your experience together, do you say that section 18, from your knowledge of this outcrop, is essentially non-coal bearing? A. Yes, sir.

Q. Without reference to any law?

949 A. Without any hesitation, it is non-mineral.

Mr. Kelley: You may explain your answer now.

Judge Birch: Thank you, very much.

By Judge Birch:

Q. I was about to ask you why.

A. Well, our investigation showed that although we have a first class outcrop on section 17, and No. 4 mine has been de-

veloped upon that, it shows absolutely that the coal has run down to a worthless condition, thinning out or mixed with interstratified bands, until it is absolutely worthless; so that, I say that section 18 is not mineral land.

Q. Now, say, at that point to which you have testified to as having a twelve foot vein of coal or seam of coal,—was that territory or that test pit or prospect, as you call it, was that workable coal in that pit? A. Yes, sir.

Q. That was workable?

A. Yes, that was workable.

Q. And as you went in, which way would you go in?

A. You would go to the dip.

Q. That would be toward section 18? A. Yes, sir.

Q. And you know, do you, as a geologist and as an expert miner, that that vein of coal did not reach as far as section 18 and in workable condition?

A. From our investigations underground we find that it does not.

950 Q. Did you go underground at this point?

A. We went underground immediately west of that point.

Q. Where? A. Immediately west.

Q. Where west?

A. In the 5th south entry of No. 4 mine; it is a quarter of a mile due west of that line.

Q. And there it was all worked out?

A. And there it was all run out into an unworkable condition.

Q. How near would that have taken it to the line of 18?

A. Within half a mile at that point.

Q. And would you be willing to say that, if they had worked on further, they could not possibly have worked through and obtained anything in the way of coal further on?

A. No, sir, I would not, and no man can say so.

Q. How can you say, then, that it is essentially non-mineral?

A. Because there is no coal proven half a mile away from it. We don't know, and nobody can tell how far there is any coal or if there is any coal under that.

Q. Now, Witness, suppose No. 4 mine had never been sunk or started and you had measured this same hole in 1901 or 1900, this hole now, I am speaking of, where you found the twelve foot vein—and you didn't know whether it would work out or whether it would not work out, could you have conscientiously testified as a geologist, that is, a man having a geological knowledge and as a miner having actual knowledge and experience in mining—could you have conscientiously, then, made an affidavit

that section 18 was essentially non-coal bearing or non-mineral land?

951 A. As you call upon me for my general experience along those lines, I should say yes still.

Q. Why?

A. Because the coal fields of the cretaceous areas are so irregular and are of such small areas, small faces, that you cannot figure upon them going away for three-quarters to a mile away from the outcrop; in instances they may do so, but that is a matter you have got to have developed, in order to prove it.

Q. Do you make any distinction between an affidavit or a statement that you do not know that there is any coal under there and an affidavit or statement that there is not coal, that there essentially is no coal there?

A. Well, that is a distinction without a difference.

Q. Is it possible? Do you say that is a distinction, to say that you don't know that there is coal or to say that you know there is not coal? A. No, I don't say that.

Q. Well, I want to know now—

A. I should say that I don't know that there is coal there. There is no man who can say that there is coal; there is no man who can say that there is not coal there.

Q. Then, do I understand you to say you could make an affiravit that there was essentially no coal there?

A. I should say it was essentially non-mineral; I would not put it essentially non-coal; I would say essentially non-mineral.

Q. You are aware that coal is classified as a mineral, are you not? A. Yes, sir.

952 Q. You so classified it yourself? A. No, sir.

Q. You do not?

A. Only in the United States Land Office rulings we would classify it as mineral, but it comes under different rules altogether and is not a mineral in the strict sense of the word.

Q. You claim your own classification, rather than the land office classification?

A. Oh, certainly; just as our education has gone.

Q. Then I understand where the Land Office classification suits your ideas you adopt it, and where it don't, you don't adopt it; is that the idea?

A. Well, I don't say so, but it would be a very good rule to apply.

Q. Now, I want to call your attention to the next pit; I think it is in the section below 18 here. What have you to say in regard to the west half of that section 20, township 20?

A. My investigation of the coal horizon opposite section 20 shows no workable coal; therefore, the inference is that the

coal to the west of the coal horizon would continue of the same class. No one would spend money to prove otherwise.

Q. No workable coal. Do you know or do you keep track of the statistics of the mines?

A. As far as possible, yes, sir.

Q. What was the output of the Diamondville coal field or the Diamond Coal & Coke Company, for instance, in the year, 1901?

A. I cannot tell without referring to notes and statistics.

Q. Have you ever heard anything stated about the daily
953 output? A. No, sir, I have not.

[A.] Of mine No. 1, Diamond Coal & Coke Company?

A. No, sir.

Q. Or No. 2? A. Not offhand.

Q. You have never heard any statement?

A. Oh, I have seen the mineral resources of the United States which compiles all that.

Q. You don't know what they took out of No. 3 or No. 4 at Diamondville? A. No, sir.

Q. You don't know what the Kemmerer output has been?

A. No, sir.

Q. You don't know what the Cumberland has been?

A. No, sir.

Q. Now, if in this region from the main line of the Oregon Short Line down here to the Cumberland and including the Cumberland, it was stated to you that along that outcrop, upwards of three millions of tons per annum of coal were taken out of ten mines, the ten mines that you have testified about, would you say that this is a pretty poor and uncertain mining region, the Diamondville region?

A. It would just simply confirm what I have said all along.

Q. That it was no good?

A. That we have good places along the outcrop, but they are not continuous; there is no bed which is continuous in the field; there are good spots where we opened mines on. It has no reference whatever to the poor ones.

Q. Now, do you think that a mine is a poor mine that will turn out a thousand tons a day?

954 A. No, it is not.

Q. Is it a pretty good mine in this Western country?

A. A fair mine, yes, sir.

Q. And would compare pretty well with the Sunnyside and Castle Gate?

A. It does not compare very well with Sunnyside; it compares very well with Castle Gate.

Q. How does it compare with the Border mine in Durango?

A. Oh, there is no comparison there at all.

Q. That is much larger?

A. Much smaller than this; there is no work there hardly.

Q. Then, it would be considered a pretty fair sized mine if it kept on for several years turning out from five hundred to a thousand tons, daily, would it? A. Oh, yes.

Q. You would consider the territory in, around and about that mine pretty good territory, wouldn't you?

A. Immediately around.

Q. Now, I will ask you another question. In taking out coal, what is the specific gravity or weight of bituminous coal on the average? A. Oh, about—

Q. Wait a moment now; dont be too quick. You are a little too quick on the trigger for me,—per acre per foot of thickness of seam; what is the weight per acre per foot of thickness of seam?

A. Well, as a rough calculation, you figure one thousand tons per foot per acre.

Q. Dont you know that there are those that figure
955 seventeen hundred tons?

A. Well, there are those who figure, may be, a great many different ways, but in the actual, practical work, every day work, if you get a thousand tons per acre that is the basis of our calculations in all our workings.

Q. You would say that that is pretty good?

A. That is our estimate, and that is our figures that we base all our estimates upon.

Q. Now, in taking out coal from a mine, if there is what you would call a following in that mine is that obviated by leaving a portion of the coal as support for the mine?

A. Yes, if the coal will support itself.

Q. That is, if a part of the coal will stay up?

A. Will stay up.

Q. And you take out the other part?

A. Yes, if you can do that.

Q. Now, do you say that, having taken out one part, that you cannot put up lagging or props or whatever you call it to hold up that, and take out the remainder?

A. Some veins you may be able to split that way and leave part on the roof, and some you cannot.

Q. Can you do that in this territory?

A. No; you can do it in spots, but not generally, because of the crushed area, that bastard coal comes in so irregularly, that when you strike that no propping will keep it up.

Q. But they have left sixty-five percent. here, have they, generally?

A. Yes, sir, they have.

Q. Would you consider that of any value?

A. About ten percent. of it.

956 Q. In other words, you think they can save about ten percent. of the sixty-five percent., or of the total amount as it originally was?

A. That would increase the total amount to about forty or forty-five percent., instead of thirty, it would increase your recovery that much.

Q. What proportion of the chambers or rooms, as you call them, in these mines that you examined did you get into; what proportion of them?

A. I did not get into very many of them; very few of them.

Q. In making these measurments for use in making these examinations of the field, in making these vertical sections of yours, which you have read here, what proportion of the total number of rooms, and the total number of slopes, did you get in?

A. Well, the sections show where we measured. Here is an exhibit showing in red the lines covered, and these red crosses show where the sections were measured. Now, I cannot tell what proportion that was.

Q. Will you say now that you went into one-fifth of the slopes of those mines?

A. That is immaterial; I dont need to.

Q. It dont matter. Will you say so. I dont want to argue it with you; I want to know the facts. Did you go into one-fifth of the slopes?

A. We went through the entire distance of the slopes.

Q. Well, I dont know—what did you call them, rooms or entries then; levels; isn't that the proper term?

A. Levels or entries.

Q. Did you go into one-fifth of those levels?

A. No, sir, I did not.

957 Q. Did you go into one-eight of them— I don't mean this particular one, but as a regular thing.

A. I went in No. 1, into one-third of them.

Q. Now, did you go into one-tenth of the rooms?

A. No, sir; I did not; it was not necessary.

Q. Now, what indicates the rooms here on this map?

A. These lines here.

Q. These perpendicular lines?

A. Yes, with the little crosscuts.

Q. Will you state to the reporter what exhibit this is, what the number of this exhibit is?

A. It is defendant's exhibit No. 15.

Q. Have you got another map similar to this?

A. I have not; Mr. Kelley may have.

Mr. Kelley: He[illegible]eans have you got a map of the other mines.

A. Yes, sir.

By Mr. Birch:

Q. What is the number of this exhibit?

A. Exhibit No. 8.

Q. Now, I call your attention to exhibit No. 8; of what mine is that?

A. No. 2, Diamond Coal & Coke Company's mines.

Q. Now, will you say from that map what proportion of the levels or entries you went in upon this so called investigation.

A. One-fifth, and the entire distance of the slope.

Q. Which means all the rooms of those entries or levels; did you go into all the rooms? A. No, sir, I did not.

958 Q. What proportion of the rooms, then, in that mine did you go into? A. Oh, infinitesimal.

Q. How are the rooms designated on this map?

A. By parallel lines with attached lines between them, and located between levels.

Q. You could not give me any idea how many rooms there were in that mine, could you? A. I could count them.

Q. So could the Court or counsel. I don't want to take the time. Now, will you get the map of No. 1 mine?

Mr. Evans: We have not got a map of No. 1.

Q. No. 4; we have had that.

Mr. Kelly: No. 3 is worked from No. 1 and No. 2.

Q. Was No. 3 worked from the other one?

A. No. 3 is really part of No. 1.

Q. You have got another there.

A. Well, this is simply a rough sketch, you know, on a small scale.

Q. Do you think that was a thorough investigation of those mines, if you didn't go to the face of each one of these entries or floors, or whatever you call them, entries, I guess, or levels?

A. Entries or levels—

Q. Would you consider that a thorough investigation of

959 a mine; would you have the Court infer that it is?

A. For the purposes that are involved in this suit, yes, sir.

Q. That is, as indicative of what lies elsewhere in the immediate vicinity, or what is indicated elsewhere in the vicinity, you went in, in your opinion, all that was necessary?

A. Yes, sir, I did.

Q. Now, would you make the same kind of statements of these mines and their character, so that the same inferences as

to their value might be drawn by other persons having no knowledge of their own, if Mr. Kelley had employed you to make a statement of those mines for the purpose of bonding this company or selling the mines out to any outside party?

A. No, sir; that is another condition altogether, another requirement.

Q. Why?

A. Because then it is a question of the value of the material in sight, and in that case we would have to make a general examination to see what has been worked out, what has been left in that is available, and then it would come in to show that you cannot go beyond the limit of these workings, and we would have to make our calculation directly on what coal there is in sight.

Q. Then, you would make a narrower statement in that case than you would in this one? A. No, sir, I would not.

Q. Will you explain? May be you and I do not get our minds together.

A. No, I admit that it is pretty hard to follow you. If you are valuing a mine, you would see the outcrop, what
960 shows there; you would go into each level and take average rooms. You would not go into every one, but you would take what you would consider about an average number in all of these levels right through. On each one of those levels you would show what coal was unworkable there along this one, and unworkabe through here all the way around, till you came out on the outcrop again. Then, the whole thing is how much coal is there, what is the value of that coal in place, what would its value be when it was put on the car, and how many tons is there of it. In this case we do not need to care for this material; we know it is good, but what we want to know is the limits, the lines of the workable area, that is all. That is the statement of the two cases.

Q. Now, Witness, if the present owner of the stock of the Diamond Coal & Coke Company wanted to bond their property, which included section 18, six 40's in on the west half of 20's, fourteen 40's in 30, sixteen 40's in 6, all in 20 and sections 6 and 12 and those four red 40's in section 18 in town 19—now, if you were called upon—if it was their desire to bond these lands or sell them, would you, if employed by Mr. Kelley, have made a report that they were essentially non-coal bearing lands? A. Yes, sir.

Q. You would? A. Yes, sir.

Q. You would have been willing to testify to that report?

A. That they were non-mineral lands.

Q. Do you think Mr. Kelley would have employed you under such circumstances?

A. I don't know anything about that. Mr. Kelley is
961 the one to tell you that.

Q. Well, I only want to know how strong your faith is.

A. Well, I don't know what faith is; I know what is actual knowledge, but faith is not very strong.

Q. You gave these lands a pretty good prospectus as agricultural lands, that is, you spoke of their soil and capabilities for pasturage.

A. No, sir, I did not speak of the soil except generally, that it was covered with soil and that there was grass and sage brush, that it was grazing land of this intermountain region.

Q. You have known these lands since 1895?

A. Yes, along in thereabouts.

Q. A period of thirteen years or more? A. Yes, sir.

Q. Do you know what the agricultural output of that valley or region has been since that time? A. No, sir.

Q. Did you ever see any olive groves there, or bananas or banana plantations? A. No, I never did.

Q. Did you ever see a crop of oats there?

A. I don't know; there is some farming done up the Little Muddy, but I don't know what it was there; I never paid any attention to it.

Q. Did you ever see a crop of rye? A. No, sir, not here.

Q. Did you ever see any on that land?

A. There is none of that land under agricultural cultivation today.

Q. That is what I wanted to find out.

962 A. Well, I take it you can.

Q. Do you know of any land under agricultural cultivation at an elevation of seven thousand feet?

A. Lots of it.

Q. In Wyoming or further south? A. In Utah.

Q. Oh, that is down in southern Utah?

A. No, in northern Utah.

Q. Well, northern Utah, but have you ever in this region seen any land devoted to agriculture at that height, that is, at the height that this land is.

A. Well, I couldn't tell just exactly what the height of this land is.

Q. Counting it between sixty-five hundred and seven thousand feet.

A. What is the elevation of Cokeville? We have the Cokeville district, but I don't know what that elevation is; it must be very close to it, though. Here is sixty-five hundred feet out here in the Bear River valley on this map; there is an elevation generally of sixty-five hundred feet, and I have seen lots of crops raised over there, and I suppose around Evanston here is even higher than that.

Q. That was by irrigation, wasn't it?

A. Oh, certainly.

Q. Now, if there was not any water that you didn't have to pump up there by force, or tunnel through mountains to get in there, you would not consider that an agricultural proposition now, would you?

A. No, sir, just as a grazing proposition with no water on it.

963 Q. Will you tell me how many cattle you have ever seen grazing on there, what herds of cattle you have seen?

A. No, I haven't seen any cattle grazing there, but—

Q. Did you see any sheep?

A. Yes, the last time I was up there there was a very large herd of sheep right in that valley along on those lands.

Q. This month, this last visit in April?

A. Yes, sir, and the droppings of sheep are thick in places almost an inch in depth right close around this land there.

Q. It was unsafe to go through there?

A. No, the sheep wouldn't carry you away.

Q. Did you know whether the herders belonged to the Diamond Coal & Coke Company or not?

A. I did not investigate; it was nothing to me who they were.

Whereupon further hearing was continued until Wednesday, April 22nd, at 9-30 A. M.

964 Wednesday, April 22nd, 1908, 9-30 A. M.

Hearing resumed pursuant to adjournment.

Robert Forrester,

Cross-Examination Resumed

By Mr. Birch:

Mr. Kelley: I understand that there was some inquiry in the court room last night about professional paper, No. 56. I want to state the circumstances under which I came into possession of it. During the recess I was informed that it was on the safe—

Mr. Burke: Nobody has anything to say.

Mr. Kelley: I supposed it was there for reference, and said I would like to read it, and I asked them to get it for me.

Mr. Schultz: It is a library copy and must be returned; that is all there it about it.

Mr. Birch: They will be out in two weeks.

Mr. Kelley: I understand that. Would there be any objection to our using it?

Mr. Schultz: Leave it here so that I can refer to it any
965 time I wish, and you may refer to it.

Mr. Kelley: That is satisfactory. There are some matters here that I would like to examine, which have reference to this particular field, and possibly I might like to have some of our witnesses look at it.

Mr. Schultz: I have it in my possession, so that any time you want to look at it, you may.

Mr. Kelley: Would you allow Mr. Sales to look at it today?

Mr. Schultz: Just now I want to use it, but I will let you use it any time you want it in half an hour or so.

By Mr. Birch:

Q. You stated yesterday that there were some five or six desirable or necessary qualifications in a profitable mining proposition. Will you give them again?

A. First, the quality of the coal.

Q. That is enough; quality is enough for me.

A. Second, the quantity of the coal. First, the quality of the coal, second, the quantity, third, the accessibility, fourth, its market, fifth, transportation, sixth, the nature of the bed itself for profitable operation.

Q. Did you intend to have it understood that, in your opinion, particular mines of the Diamond Coal & Coke Company are poor coal?

A. No, sir, I did not.

966 Q. Are they good?

A. They are good in their natures, not anything specially good; if you take the coal of the entire country—

Q. I don't speak of the entire country; I speak of the country west of the Eastern Colorado line.

A. Well, they are neither the best nor yet the poorest.

Q. Medium?

A. Yes, medium; fairly good coal and good for certain purposes.

Q. Now, do you mean to state—did you mean to be understood that they were deficient in quantity?

A. No, not at the points where the mines are open.

Q. Are they now?

A. At the advance work, the development work, at the extremities of all the mines, they are in poor coal, a poor quality and practically unworkable.

Q. Would you have it understood as the result of your opinion or investigation that they now have not coal to work,

that is, to produce the same volume that they have produced before?

A. They have the same volume in the coal that they have in the present area which they have developed, but when that is worked out they cannot extend their area of operations. They have simply got their workings up to the point of their development now; they will not pass beyond it.

Q. How do you know?

A. Because our investigation has shown that the coal has become too thin all the way around, every one of their mines; their development work which they have, their prospect work which they have done on so many of the levels, prove
967 that it is beyond economic prospecting to find any more coal beyond those boundaries.

Q. Would you mean to have it understood as the result of your opinion and investigation together that in the mines owned by them from their northerly limit to their southerly limit they will never find any more coal of a workable quality?

A. That is my impression and my opinion.

Q. And your opinion? A. Yes.

Q. Would you state it as anything more than an opinion?

A. Yes, I would say that from all the investigations, all the conditions there in the field which support my opinion—I would say they support me and bear out in the fact that they will not get any more good coal outside the present boundaries of the mines, because on the surface between those productive areas we have thin coal, too thin to work, with too many stratified bands of foreign material. Each one of the mines in their boundaries are up against that thin coal, so thin that it is unworkable, so that everything in the field bears me out in saying that taking the entire area the depth at which you have to put down drill holes—that that area is too deep and the expense is too great for the practical prospecting to be carried on; you cannot raise the money on it.

Q. Upon the hypothesis of this Company owning approximately two sections wide from mine No. 1 on the north down to the limit of the Union Pacific's operations, away down here somewhere at section 17, and including these brick marked or red marked sections and part of section 18, 30, six 40's on the west half of 20, all in town 20 north, 116 west, and 6, 12 and the east half of the northwest quarter and the north half of the southeast quarter of section 18 in town
968 19—do you want to say, as your judgment, that no coal will be found of a workable character in all of those lands?

A. I say it is. We have got to eliminate 18, because it is absolutely useless to talk about it, because the area is too small to talk about operating it.

Q. Will you stop right there?

A. Will you allow me to answer the question?

Q. Very well. Do you know Mr. Griffiths of the Union Pacific Coal Company?

A. I have met him, I think; I am not quite sure. I know a Mr. Griffiths who used to be with that company.

Q. That is the same man evidently. Suppose he testified—you may take that in your hypothesis—that in their mine on section 17 they mined up to the actual line of the north half of the southeast quarter of section 18, and when they quit because they had reached their limit, they had a fifteen foot seam of workable coal of good quality; you may take that into the hypothesis and then proceed to answer the question.

A. Well, I shall first answer the question as propounded without the hypothesis as to 18, and afterwards I can take up 18.

Q. All right, do so; go on in your own way.

A. As to 18, it is absolutely worthless to the present owners or any subsequent owners except, possibly, the Union Pacific Coal Company. As to 12, 6, 30, 18, the best that you have is six hundred and forty acres at a depth shown by Mr. Veatch to be two thousand feet or over. To prospect that requires so many drill holes that by the time you got the prospecting done to find out whether there was coal or not, even
969 although you should find the best coal in the country, you have far exceeded the value which you will receive from the coal in its operation before you even have the initial expense of sinking the shaft to commence working. Now, as to the second part of the question, as to the assumption from Mr. Griffiths's testimony, I dont know what the testimony is; yet, even although they had the best kind of coal at the boundary of section 18, it is worthless to anybody except the Union Pacific Coal Company. The ownership is not in the Union Pacific Coal Company. It would not pay to put in work there to mine any coal which is on either of these two 80 acre tracts at a profit; we could not get area enough to open a mine on it, so it is worthless to anybody.

Q. Do you say it is essentially non-coal land all through there?

A. I say it is non-coal land for operation. It is non-coal land on the surface in that there it not a vestige of coal to be seen. You cannot say it is coal land unless there is coal exposed by artificial or natural exposure. I cut out the word essential, because I would either put it one way or the other; I want to cut out the word essentially; I will testify positively.

Q. Suppose, Mr. Forrester, a drift or level was running toward section 18 on an adjoining section owned by other

parties, and reached it within five feet of the boundary line, up and down, the vertical line, and disclosed good coal all the way within five feet of that line of 18, would you say that 18 was essentially non-coal land because there was no outcropping of the coal at the surface?

A. I would say—

970 Q. Wait now; dont get too quick on the trigger.

A. Just let me know when you are through.

Q. I will close when I get through. Would you say that that was essentially non-coal land because somebody else had held that there must first be a discovery to make it coal land?

A. Cut out the word essentially in your question, will you?

Q. No, sir, I want essentially in there.

A. Well, I have no objection to your putting essentially in, but I am answering the question with one reference to the essentially, and I am answering the question positively.

Q. You have no right to do that in fairness to me in asking you questions.

A. Yes, I have.

Mr. Kelley: No, you haye not; you must answer the questions as they are propounded.

Q. I want you to answer my question, and then you can answer questions and give any explanations by your counsel afterwards.

Mr. Kelley: Of course, it makes it stronger; he says he is answering positively.

Q. Go ahead.

A. Should there be a drift or slope driven up within five feet of section 18, and even although it should be in good coal, it does not prove that section 18 even then is mineral land, and strictly speaking it is non-mineral land until the drift has extended into and through a seam to prove that it is mineral land.

971 Q. In giving that answer do you still insist upon the discrimination between mineral land and coal land?

A. No, sir; I say that coal land is under the laws of the United States called mineral land, although operating under a different law. In the legal term of mineral land coal is included. We are guided in all our actions by the legal terms mineral or non-mineral, and that is my guidance, and that is the basis upon which I am answering your question.

Q. In other words, you mean to be understood that it is non-coal bearing land? A. No, I say it is non-mineral land.

Q. But do you say that it is non-coal bearing land?

A. Nobody can say whether it is non-coal bearing or coal bearing, because no work, as you gave in your hypothesis, has

gone into it yet; there is nothing shown upon the surface and there is nothing by which anyone can predict or put forward evidence that will be accepted by any court of justice that that land bears coal, even although, you are within five feet of the land.

Q. I will put it now within one foot.

A. One foot is just the same as five feet.

Q. I will put it three inches.

A. Well, put it three inches.

Q. The same answer? A. The same answer.

Q. Now, Witness—

A. The moment you pass the line, then it commences to be coal land.

Q. I want to know if a fault or a want could occur in
972 three inches? A. Yes. A fault can.

Q. Occur in three inches? A. Yes, sir.

Q. A want can; in other words, it can taper off in three inches, I mean the want?

A. It would not be so apt to taper off so rapidly, but in the Kansas field we have had them come in almost vertical, the wants, even wants come in almost vertical.

Q. Have you seen an absolutely correct, perpendicular fault occurring so that it was not apparent within three inches of its face? A. Yes, sir.

Q. Where?

A. In Utah several times. I am working mines today—

Q. Whereabouts, that mines?

A. The Winter Quarters, the Clear Creek and the Sunnyside.

Q. How about Castle Gate?

A. We have no faults in Castle gate.

Q. Do you desire to have it understood, Mr. Forrester, then, that this company has reached its substantial limit of production of useable coal? A. Yes, sir, that is my opinion.

Q. Now, is this accessibility—are these mines and this territory accessible? A. Yes, sir.

Q. Then it is all right for accessibility? A. Yes, sir.

Q. How about their market, the market business?

A. The market is their own; they use their own coal.

973 Q. But how, if they went out of the use of the coal themselves, would be the market in that vicinity, I mean of those mines, the general market?

A. The general market is very poor except only southern Idaho, where the Oregon Short Line runs through there.

Q. Is that true that near Salt Lake and that portion of Montana tributary to Butte and in Nevada? There are constant fears expressed in the newspapers and by persons interested in the economy of coal production and upon the part of railroad officials and other large users of coal, that there will be a

dearth or scarcity of coal each year here as the season sets in in a radius of five hundred miles from those mines, and perfectly accessible to them by railway?

A. There was a little time when the rapid development of the country exceeded the production of the present mines; there was a short time in which so many people were fearing a famine in coal, but that time has passed, and it will never occur again, I don't think. The fact is today that the mines that were opened up should take care of that trade are closed down. The working force that was kept in the mines has been reduced by one-half. The markets for this coal during that time were such that they would take anything that would burn. We are sorry that the time has ended in which they would. But under normal conditions the coal of the Diamond-Kemmerer field, selling in the market, in the common, every day market, in and around Salt Lake City, will not constitute one per cent. of the consumption of Salt Lake City and vicinity.

Q. You know the Kemmerer Coal Company? A. Yes, sir.

Q. You know they do a purely commercial business?

974 A. Yes, sir.

Q. In the production of coal? A. Yes, I do.

Q. Are you aware that they are overdrawn on orders all the while? A. No, sir.

Q. And are contracted a long distance in advance?

A. No, sir, I don't know that. Why are they closing down their mines?

Q. I don't know; I am asking you the question.

A. Well, that answers it; they closed down their mines.

Q. Do you know of another independent company; do you know of the Central Coal & Coke Company at Rock Springs, who do a commercial business? A. Yes, sir.

Q. Are you aware that they have had orders more than a year in advance for their production?

A. No, sir.

Q. You don't know that?

A. Well, I know that they cannot possibly have it now.

Q. You are sure of that? A. Yes, sir.

Q. You will swear to it?

A. Well, I will say that it cannot possibly be, on account of the conditions. I am familiar with the conditions in the market today.

Q. Is that true that parties in Salt Lake City are clamoring —I mean independent parties in the production of coal in the region south of Salt Lake—are complaining of their inability to obtain cars from the railway company with which you have been employed in part—that is, the Denver & Rio

975 Grande Company—of which the Utah Fuel Company is a subsidiary corporation—for cars to furnish coal which they desired to put into Salt Lake City for use.

Mr. Kelley: I would like to have that question read, partly out of curiosity and partly to endeavor to see if I can ascertain what it means.

(Question read.)

Mr. Kelley: We object to that on the ground that the question is improper in form, in that it contains seven distinct assumptions, and that none of them have been shown to exist; that the question is based upon a hypothesis which has not been shown to exist, to-wit, that the witness is connected with the Rio Grande Railway; further, for the reason that it is argumentative and improper in form.

Mr. Birch: Of course, I am unable to understand how counsel can assume that there is a hypothesis in that question; it is simply calling for the knowledge of the witness. I stated no hypothetical question in this at all, not a shadow of a hypothesis about it, simply calling for his knowledge.

Q. Answer the question.

A. I answer positively that the indepeadent companies throughout even the hard times were furnished with all the cars they could load, even to the detriment of the Utah Fuel Company, which had to close down from time to time
976 for lack of orders, and these independent companies had all the cars they required. Furthermore, today there are cars standing in every one of their yards waiting for loads and have been for months, and even during this scarcity of coal they had cars when we were closed down, and they never had any complaint from the independent companies, so today and then, I state that they were getting more than a fair deal. It was our policy that we should put in the cars into the independent men and put in all that they could possibly use.

Q. I won't debate that subject with you. I asked you for your information, and you state that as the product of your information?

A. It is the product of my knowledge.

Q. Of your knowledge? A. Yes, sir.

Q. You say that you know that Kemmerer has shut down one of its mines? A. Yes.

Q. Permanently?

A. I expect, until the markets pick up, if they ever pick up; we cannot tell—

Q. When you say you expect, do you mean you know?

A. I wish you would allow me to answer my question before you interrupt me.

Q. You do more than answer my questions; you have not been fair with me. You go on talking after you have answered.

Mr. Kelley: We object to this lecturing of the witness; it is absurd. It is the most farcical thing that I have ever seen in my life to have counsel to assume to stand over
977 the witness with finger pointed in his face and argue with him. There is no necessity for it. Mr. Forrester cannot be cut off in the middle of his answer. He has a right to answer these questions. If the answer is improper, Judge Birch has a right to eliminate it from the record.

The Master: Well, I don't think that Judge Birch should lecture the witness as you call it, but I think the witness should answer his question first, and then explain.

Mr. Kelley: I think so, and I think if your Honor explained that to the witness, he will do it.

The Master: I have kept still because it is hard to make the witness hear.

Mr. Kelley: You understand, Mr. Forrester, that under the rules of the examination you must answer Judge Birch's questions directly, and following that, either affirmatively or negatively you have an absolute right to explain your answer. If you will kindly follow that rule.

Judge Birch: I think it is easier to get along than it is to reply.

Mr. Kelley: It is. It is easier to lecture the witness than it is to lecture counsel, perhaps.

978 Mr. Birch: Not this witness. If you want to debate that subject I think I can show that the witness is up to his business.

The Master: Go ahead, Judge Birch.

Mr. Birch: I don't want to discuss the matter any further, because I rather prefer to go along the lines of least resistance.

Q. Now, are you aware that the Kemmerer Company are strenuously engaged in putting down a new mine and opening it for their business?

A. I understand that they are considering the opening of a new mine.

Q. Merely considering?

A. Well, opening a new mine in the Willow Creek country.

Q. Are they not actually at work, and have not they been at work for nearly a year in attempting to open a new mine?

A. I understand that they have been prospecting for a number of years; as to whether they have actually started or not—

Q. Please answer my question. A. I am doing so.
Q. But I don't think you are.

The Master: Answer yes or no and then go ahead.

Q. (Last question read.)
A. I don't know that they are.
Q. Then that answers it. Mr. Forrester, did you at one time, subsequent to 1901 and before 1904, visit the Land
979 Office and there converse with Major Frank Foote and Mr. Kingston, the then Register of the United States Land Office, upon the subject of your knowledge of Snedden's course of investigating these lands in question in this suit—not these particular lands by description, but the lands involved or involving these lands—

Mr. Kelley: We object to this upon the ground that it is entirely irrelevant, incompetent and immaterial what statement the witness may have made to Mr. Foote concerning any information which he had about Mr. Snedden, for the reason that any such statement made by the witness would not be binding upon the defendant company in this case; it would not be impeaching this witness, in that he has not made any contradictory statement to that; for the further reason, that it is a useless repetition, the matter having been gone into in its entirety yesterday, and the witness having testified that during the period mentioned he had not been in the town of Evanston; further, for the reason that it is not proper cross-examination. We also object to it on the ground that no proper foundation has been laid with reference to time, place and attending circumstances.

Mr. Birch: For the purpose of clearing the record and having the Court understand our position, I desire to say that the question I asked heretofore of this witness upon this line or this subject were upon very meager information, which information has now been supplied to counsel by Major Frank Foote; that we claim it to have been thoroughly shown in the progress of this case heretofore that during the years mentioned or included in the question which is asked of the witness, that
980 Mr. Snedden was acting as the superintendent or manager of the defendant company in respect to their land hereabouts, and which are involved especially in this case, and that we claim the right, as directly impeaching this witness and his credibility and correctness as to his previous testimony, to lay this foundation and if possible perfect this impeachment. Now, that is merely for the purpose of clearing the record. Now, are you ready for the question.

Mr. Kelley: We move to strike the argument of counsel from the record and to have the Master direct the stenographer to eliminate it from the record in preparing his report to be made to the Court, upon the ground that it is manifestly improper, scandalous and impertinent.

Mr. Birch: You don't claim that the Master has a right to eliminate it, do you?

Mr. Kelley: I claim that he has an absolute right.

Mr. Evans: And it is his duty to do this, to prevent your stump speeches from going in the record.

The Master: I am not going to strike it out. I have a doubt of its propriety, but I am going to leave it in.

Mr. Kelley: Then, we want the record to show that we
981 invite the most careful consideration by the Honorable Court to whom this matter will be presented, as characteristic of the manner of presenting the Government's case by this counsel.

Mr. Birch: Read the question to the witness. There is no reply to make to that.

Q. (Question read.)

A. I do not remember of having been in Evanston from 1901 to 1904, but if you will give me the dates, I will look up my old diaries and produce them in court if necessary. I will say this as to the conversation, that I deny having any conversation with Mr. Frank Foote and Mr. Kingston about the subject as propounded. As to being in Evanston I do not remember ever having been here, but if I am given the dates at which I am purported to have had that conversation, I shall look up my diaries and produce them in court if necessary. That is the only thing I can have to verify my statements.

Mr. Birch: In fairness to counsel for the defendant as well as the witness, I wish to state on the record that it apparently is impossible to fix the date nearer than I have already done in the question. As to the rest of the question my information is definite and clear.

Mr. Kelley: Well, if he can guess within three years of the date, I should think it is rather definite.

Q. Now, then, I will ask you the further question: did
982 you not in such a conversation tell those gentlemen, Foote and [Mingston,] that to your knowledge Thomas Snedden had investigated and tested all of the lands in this county in which they were interested, or in this region in which they were interested, in procuring them for coal purposes?

Mr. Kelley: To that we make the same objection.

A. Well, I could not, because I did not have the knowledge that he had any prospects there at all.

Q. That is all of that. I understood you, Witness, to testify that no coal existed between the limits of the Diamondville Mine No. 2 and the Diamondville No. 4.

A. That no coal existed?

Q. Yes, I understood you to say that the wants—I will change it—not that no coal existed, but that the want continued between the boundaries, that is, the furthest mining in No. 2 and the nearest adjacent mining in No. 4, that the want continued there.

A. I did not say that a want existed; I said the coal was too thin to operate profitably.

Q. Even in the continuance of these mines?

A. Even in the continuance of these mines. The mines prove it.

Q. How can you demonstrate that, or what evidence have you of that—wait a minute, I have not got through with that question—

Mr. Evans: He can take a map, I suppose without interrupting you. He simply reached for his map.

983 Mr. Kelley: You don't want us to handcuff the witness, do you?

Mr. Birch: You cannot divert me from my question by your laughter or amusement or anything of that kind.

Q. (Continued) that there can be no workable coal found between those two limits, without having pushed levels through to them?

A. We know that the outcrop between those mines shows unworkable coal. The levels that have been pushed are simply confirmatory of the indications on the outcrop.

Q. What distance is that?

A. The distance between the two workings is between a mile and a half and two miles.

Q. And you undertake to say, do you, that you can tell merely because of the thinning out of the poor quality where they are at present mining on the outskirts or limits of their actual mining operations pointing toward each other in these mines, that no good coal and no workable coal can be found in all of that distance?

A. I do not say that; I say that all the evidence upon the outcrop and in the mine workings, all point to an area of thin coal. In the face of that evidence no one will prosecute

long, expensive slopes in the hope, in the expectation of possibly running into an area of workable coal.

Q. Do you mean to say that the diamond drill process, for instance, would be prohibitive, after all the expense they have gone to in these two mines—would be prohibitive of their investigation as to the possibility of paying coal between
984 the two?

A. They have put in one drill hole at a distance of about six hundred and fifty feet or thereabouts from the outcrop, where they had a fair, good outcrop to work on. The drill hole at that point shows an absolutely unworkable coal. What would be the use. What are the prospects by sinking another hole, that they are going to meet with any better success, when, two thousand feet below they have the workings showing all poor coal.

Q. Now, you are asking me a question. I am not an expert.

A. I do not mean to ask you a question. From all those things, I should say, that it would be foolishness to spend any money in prospecting.

Q. Do I understand you that this drill hole lies in a line directly in a line between the boundaries of the one mine and the other? A. Yes, sir.

Q. Directly? A. Yes, sir.

Q. Only six hundred feet away?

A. Six hundred feet away from the outcrop, but not from the mine; it is half a mile away from the mine.

Q. But I am questioning about the mines; I am not questioning about these outcrops. Draw a straight line between the boundaries of the workings of No. 2 mine and No. 4 mine, and do you say that that hole is along that line?

A. Yes, sir.

Q. Or near it? A. It is right on it.

Q. Right on the line?

985 A. Yes, right on the line projected from the workings of the two.

Q. Now, what proportion is that six hundred feet of the total mile and a half; it is not one-tenth of the way, is it?

A. That is a nonsensical question; there is no proportion in it. There is no proportion to make. You see here is the mine here, and here is the other mine here, and there is the drill hole. Now, what is the proportion of it?

Q. A mile is fifty-two hundred and eighty feet, I believe, and a mile and a half would be fifty per cent more?

A. But what way do you want me to measure it?

[A.] Six hundred feet from one of the mines would be a proportion of the total amount, wouldn't it?

Mr. Kelley: We object that the witness has not testified that the hole was six hundred feet from either of the mines, and that counsel is assuming an answer which is not correct.

Mr. Birch: Then, I misunderstood him.

The Master: I think you did.

The Witness: I did not testify that the drill hole was six hundred feet from any mine.

Q. I just asked you to draw a line directly from the workings in the one mine to the workings in the other, and you testified—I understood you to testify, anyway—that this hole was directly on that line. A. Yes, it is.

986 Mr. Birch: Well, now, I must have misunderstood him.

Mr. Kelley: The six hundred feet is the distance from the outcrop to the hole, but the hole is half a mile from one mine.

Q. Now, we understand each other. I will ask you again, taking the six hundred feet, taking the total distance from the outcropping, that is, from the limits of the one mine to the limits of the other mine, which is a mile and a half—you stated that that is what it is approximately—what proportion of the distance from one mine to the other, is that hole?

A. It is one-third of the way.

Q. What is the analysis—or rather, what does the section of that hole show?

Mr. Kelley: There is a section showing that.

A. Is it your desire that I read the section of the drill hole from the surface downwards?

[A.] No, not the whole section, but state what it shows as to the thickness of the coal; I don't care for the rest.

A. At a depth of two hundred and forty-four to two hundred and forty-five feet one foot of coal encountered; at a depth of two hundred and ninety-six to two hundred and ninety-six feet and two inches, two inches of coal encountered; at a depth of three hundred and five feet, I think the figures is —it is a little indistinct—one inch of coal encountered. At a depth of three hundred and twenty-four to three hun-
987 dred and twenty-six feet, two feet of coal encountered. At three hundred and fifty-three to three hundred and fifty-three feet, six inches, six inches of coal encountered.

Q. That is the showing? A. Yes, sir.

Q. Now, that is the one boring between those two places, between those two mines? A. Yes, sir.

Q. What was the total depth of that boring?

A. It is a little obscure on the sheet here, but it appears three hundred and eighty feet.

Q. Do you consider that a complete investigation in depth; do you mean to say that a boring three hundred and eighty feet down would be sufficient to determine the presence of desirable coal?

A. Yes, in that place; you have passed beyond the coal bearing zone.

Q. How do you know?

A. We have not only our own investigations, but we have investigations of Mr. Veatch; we have the investigations of anyone who has been studying that Kemmerer-Cumberland coal that it is a certainly limited zone.

Q. Now, will you please point out on this Government exhibit No. 280, the point where that hole is, if you can. It is right here, I believe, marked at this point. Is that it, about there?

A. It is approximately there.

Q. Give the subdivision.

A. It is upon the southwest quarter of the southwest quarter of section 4, township 20 north, range 116 west.

988 Q. Where and when did Mr. Veatch testify that that last was past beyond the coal bearing horizon or coal zone?

A. He testified as to the zone in his bulletin, 285. In his testimony, which I read over, he speaks of this hole, top of this hole, where it is passing through the wash or mud, as he calls it, and claims that the horizon of the Kemmerer-Cumberland coal has been eroded out.

Q. Was this in both the bulletin and his testimony?

A. I dont remember that he mentioned the fact that it is run out, but in his professional paper which I had the pleasure of seeing last night, he places the Kemmerer-Cumberland zone at this point that I speak of in mud at the top of the hole.

Q. Will you produce that?

A. I believe it has been handed to you gentlemen.

Q. Here it is. Produce that.

A. Yes, sir. Upon page 25 of Professional Paper No. 56, entitled Diamond Drill Boring between Kemmerer and Devil's Glen, Uinta County, Wyoming. For location see plate 23, D. C. & C. Coal, U. P. C. Coal. Referring to the vertical section on the plat, marked No. 22, D. C. & C. Coal No. 4, he says: "The line marked horizon of the Kemmerer coal passes through near the top of the section, and all the coals, worked are below the line." His classification is entirely wrong.

Q. What is the location of that section?

Mr. Kelley: You are referring to another paper, Mr. Forrester; you had better tell us what it is as you go along.

A. Referring to plate 23 of Professional Paper No. 56, the figure 22 with a circle added is shown upon section
989 4 in the southwest quarter of township 20 north, range 116 west.

Mr. Kelley: Now, so that we will have some means of identifying it, I think it should be marked for identification.

Mr. Burke: That will be the same plate as complainant's exhibit No. 311, and that is already introduced.

Mr. Kelley: Instead of referring to this, then, let it be shown that the witness refers to complainant's exhibit No. 311. We ask, however, that this page be marked for identification.

Q. What evidence have you that that is dated in the plate or shown in the plate to be eroded; might it not have been a want instead of an erosion?

A. It does not state in the report that it is eroded, but in his testimony he states that the coal has been eroded out.

Q. Now, you admit, then, that in the plate the erosion as such is not definitely shown?

A. As it is shown in the plate, he shows the zone passing through a sandstone bed, designated as a sandstone by the symbols.

Q. Then, you admit, do you, that that does not in the plate show erosion that you speak of?

A. I admit that, yes.

Mr. Evans: We want that plate marked.

Mr. Birch: Cannot it be marked on something else? The trouble is he has got to return this.

990 Mr. Kelley: Well, we are going to have that marked. It won't hurt it to put an exhibit mark on it.

Mr. Birch: Well, all I can see is that he cannot leave it, but we know what it is.

Mr. Burke: You have got the number and the page and the name of it in the record.

(Discussion by counsel.)

Mr. Birch: Mr. Schultz states that we can tear the plate out and have it marked as an exhibit. It is the letter press which he must preserve.

Mr. Kelley: That would be a good idea, but the Government is so reluctant that we should have this book which is a government publication—

Mr. Birch: I don't like that.

Mr. Kelley: We don't like it, either.

Mr. Birch: This witness came out here with an advanced sheet of a publication, as he states, intrusted to his care. We have at all times expressed our willingness that counsel
991 should have all reasonable access to this book now in this hearing. We now even go so far as to say that this plat, which alone was called in question in this evidence, be torn out of the book, since it can be spared by Mr. Schultz, but it was specially in his custody, and it is just like a public document that a witness brings in from the Department at Washington in his charge, produces in court and takes back with him, and has all the sanctity surrounding it that such a document would have. It has not yet been published to the world, nor in this case published.

The Master: Well, all they are asking is to have this marked for identification with the understanding that another copy can be substituted for it after the hearing is over.

Mr. Kelley: I am willing to do that, but I am going to insist that this plat be marked for identification as part of the cross-examination of this witness, and we will agree to a substitution afterwards.

Mr. Birch: Do you want any more than that plat?

Mr. Kelley: Yes, sir.

Mr. Birch: Do you want the whole book?

Mr. Kelley: No; we want this plat and we want the de-
992 scription that affects the cross-sections of the outcrop.

Mr. Birch: This book he has got to take back to the library. The witness who has custody of the book states that if he can only have the book itself to return where it is his duty to return it, it is perfectly satisfactory to him whichever way you work it.

Mr. Kelley: I don't care to insist on the book being kept, but I want to have access to this plate, and I want to get the description of the section taken along the outcrop. We can read that into the record, and then you can have the book back. It is understood, then, that the witness says that we may remove this plate from the book, and another copy may be substituted afterwards, and it is also agreed that we may have access to this descriptive matter here, and we will read it into the record and then return the book.

Mr. Birch: Very well.

Plate, referred to, marked for identification, defendant's exhibit No. 20, C. J. O.

Mr. Kelley: As I understand Mr. Schultz, the difficulty of leaving this original volume is that he is charged with returning the particular volume to the library at Washington, and under the circumstances it is agreed that the defendant may have the plate referred to and marked for the purpose of making either a tracing or a blue print, and that that can be admitted in to the record temporarily, with a substitution
993 of a similar plate from another volume as soon as it is obtainable. Mr. Schultz says he will furnish that. That in regard to the cross-sections described in Professional Paper No. 56 that refer to this particular plate we may take a copy of them out of the book, and either read them in evidence or put such parts as we want from the copy into evidence, and that these pages that will be copied will be supplied later by Mr. Schultz to the Master, and in connection with the matter so that the record will show what we are referring to, would you mind if I read the title of it into the record so as to identify it?

Mr. Birch: No.

Mr. Kelley: It is entitled on the cover page Professional Paper No. 56, Theories A., Economic Geology; B., Descriptive Geology; C., Systematic Geology and Taleontology; F., Geography; C., Systematic Geology and Paleontology; F., Geography. Department of the Interior, United States Geological Survey. Charles D. Walcott, Director. Geography and Geology of a Portion of Southwestern Wyoming, with Special Reference to Coal and Oils; by A. C. Veatch. Washington. Government Printing Office, 1907.

Q. Now, Witness, upon the hypothesis that the defendant company owns or claims to own and control in town 21, range 116, sections 23, 24, 25, 26, 35 and 36 and in town 20, sections 4, 5, 7, 8, 17, 18, 19, 20, 29 and 30, 31 and 32 and in town 19, sections 5, 6, 7, 8 and 18 and in town 17, section 12, the same being along within two or three miles in proximity to the outcrop that has been testified about do I understand you
994 to say that it is the result of your judgment and experience as a geologist and a practical coal mining man that, with the exception of cleaning up the coal in the mines already started, you would advise the abandonment of that zone and the lands included in my question as a coal proposition?

A. Yes, sir—

Mr. Kelley: Wait a minute. We object to this upon the ground that the hypothesis is not based upon any proof in the record; upon a hypothesis that has not been shown in proof; upon the further ground that it is irrelevant, incompetent and

immaterial, as under the laws of the United States the lands are to be regarded in essence in segregated tracts of one hundred and sixty acres and that the ownership of adjacent or adjoining land does not tend in any to alter the classification which the Government would place upon the land.

A. Yes, sir; if my advice was called for as to the probability of finding coal, I would say to abandon the field when the present mines are exhausted.

Redirect Examination

By Mr. Kelley:

Q. Mr. Forrester, you were asked yesterday whether your company, the Utah Fuel Company, had obtained lands directly or indirectly from the United States Government. Do I understand you to mean that the Government did not at any time own any portion of the land which your company obtained or that your company had nothing to do with the acquisition of the titles while they still remained a part of the United States Government Public Domain?

995 A. That is a correct statement of the fact.

Q. Well, which?

A. That we did not purchase the lands while they were vested in the United States Government.

Q. Now, I understood you to say that No. 1 mine was opened before the branch of the railroad had been built. Did you refer to the main line along by No. 1 mine, or to the branch line from up north of Kemmerer down into that field?

A. I had reference to the branch line from the main line through Mammoth Hollow, when I say that No. 1 mine was opened before that branch was built.

Q. When you refer to the guidance that has been furnished to you by Mr. Snedden and Mr. Shurick, I want to ask you if this was done at your request? A. It was.

Q. Why?

A. Because in the first place we were not familiar with the mines, and even had we been familiar with the mines we did not know the condition of the entries which we desired to go in regard to gas or safety, and therefore we asked for someone who was familiar, a competent guide through the portions of the mine which we desired to go, should be provided.

Q. Now, I believe you answered in your reply to Judge Birch that on the first day you traversed twenty miles. What was the journey?

A. The first day we traveled from Diamondville across the measures down to the waterfall, somewhere here (indicating on the map); across the measures.

Q. In this traversing of twenty miles did that include the ride out and the examination back?

995½ A. Well, at that time—I don't believe we went twenty miles the first day; the twenty mile day was on the 10th. When I testified as to the twenty mile ride, I should have said it was on the 10th.

Q. That is what I had reference to. That was not the first day?

A. No, sir. The first day was the 6th, and this was the 10th.

Q. Well, on the day that you traversed this twenty miles what was your journey?

A. Our journey was from Diamondville along the road behind Oakley and crossing over into the Mammoth Valley, west of the railway, to pass through the lands in dispute and identify corners where they could be pointed out to us—the corners which we did find we identified—and we came down to the south boundary of section 12 and across the north boundary of section 18 to the coal horizon, and then followed the coal horizon all the way back to the prospect holes in section 4, and then took the wagon road back to Diamondville.

Q. Well, you started from Diamondville, as I understand it, and traversed southerly to the south line of section 8 in township 19.

A. The south line of section 12 and the north line of 18, and the south line of 8.

Q. In what township is that?

A. That is township 19 north, ranges 116 and 117 west.

Q. What method of conveyance did you have?

A. Horseback.

Q. Now, there seems to be in the record, I thought, some confusion with reference to mineral and non-mineral land. What is land, geologically or scientifically speaking?

996 A. Land would be the surface of the earth.

Q. What is mineral?

A. A mineral, legally, is anything—

Q. No, not legally, but scientifically.

A. Anything that has never at any time formed part of plant or animal.

Q. Plant or animal life? A. Yes, sir.

Q. Is there any such thing, scientifically, as non-mineral land? A. No, sir.

Q. Does all land contain mineral?

A. All land is mineral; it must be.

Q. Essentially so? A. Yes, sir.

Q. Is there any distinction or classification into mineral and non-mineral land that is known to you, other than the classification made by the United States statutes?

A. There is the legal definition of mineral.

Q. Well, I ask you, is there any classification of lands into mineral and non-mineral lands other than that made by the United States law that you ever heard of?

A. No, except the scientific.

Q. Is there any scientific classification of land into mineral and non-mineral land? A. Oh, no; there is not.

Q. So that when you speak of mineral and non-mineral land, unless you speak of these terms as classified by the United States law, they mean nothing?

A. They mean nothing.

997 Q. When you speak of the non-mineral character of the land in controversy, are you including coal?

A. Yes, sir.

Q. When you spoke of a following in a mine and the leaving of the coal in order to permit working, did you refer to coal pillars or to a section of the coal left at the roof?

A. I referred to a section or stratum of coal left for a roof for the working room or the working entry as the case may be, and not to the pillars.

Q. The leaving of coal in the case of a following, has that anything at all to do with the usual custom of leaving pillars to support the roof? A. No, sir.

Q. Judge Birch asked you if you were examining the mine for the purpose of a bond issue or a purchase, if you would make the same report, do you remember?

A. Yes, sir.

Q. Were you investigating to determine the character of the land, taking into consideration the area of coal that was actually opened up in the mines which were working or the conditions that existed at the terminations of the workings as to coal?

A. I was taking only into consideration the terminations of the mine, the results at the boundaries of the workable areas, and the probability of the continuation of the coal.

Q. You stated, I believe, in answer to a question that you would not make the same sort of a report for purchase purposes? A. Yes, sir.

Q. If, however, you were retained to make a report for the purchase of the lands in controversy, would your report

998 be the same?

A. My report would be not to purchase.

Q. That was the purpose of your report?

A. Yes, sir.

Q. In referring to the four 40's in section 18, township 19 north, range 116 west you stated that the section would be worthless as a coal mining proposition to anyone but the Union Pacific Railway Company. Why?

A. Yes, the north half of the southeast quarter might be valuable to the Union Pacific Company, because it is adjacent to it; and I was asked to assume that the coal was twelve or fourteen feet thick there, and its close proximity to their mines, which I had to do; but they could not use the east half of the northwest quarter unless they acquired some of the adjacent land, too, as they could not pass from one tract to the other without trespassing upon people's property, even with the assumption that the coal was to be found there of workable thickness.

Q. In segregated tracts would you say that portion of 18 which is colored red could be profitably opened up and developed as a coal mine, assuming the other conditions given you by Judge Birch?

A. Well, it might be possible providing they had the outcrop.

Q. No, I say in segregated tracts of—

A. Eighty acres as shown?

Q. Yes, or taking an ownership which would include merely the portion colored red in section 18?

A. Oh, no, you couldn't; you couldn't operate it profitably.

Q. You referred during the examination by Judge
999 Birch to the plate in Professional Paper No. 56, heretofore referred to, which you said showed that your answer to Judge Birch that a depth of over three hundred feet where the diamond drill hole was put down on section 4, in township 20 north, range 116 west, sufficiently deep to have passed through the coal strata, was verified by this section?

A. Yes, sir.

Q. Is that true? A. Yes, it is.

Q. Explain why you say that.

A. Because in the first place the coal was passed through there where the Kemmerer-Cumberland beds or zones or series of beds, and when it passed through that, you do not get anymore coal until you get near the face of what they term the Frontier formation, so that they are absolutely too deep, if they were workable.

Q. Well, what is the next coal bearing strata of rock, underlying the Kemmerer-Cumberland bed?

A. Away below the Oyster Ridge sandstone.

Q. Do you know in feet, approximately, what the depth of that coal bearing stratum would be at this point?

A. Mr. Veatch in another plate here shows the approximate position of it.

Q. What plate do you refer to now?

A. Plate No. 24 of Professional Paper No. 56, entitled "Sections of Coal Bearing Frontier Formation in Uinta

County, Wyoming by Union Pacific Coal Company, 1904." They have a section at Cumberland—

Mr. Burke: We object to this as immaterial, not proper redirect examination, in nowise having been gone into
1000 heretofore, either upon direct examination or cross-examination.

Q. Well, I just wanted to ask you if you know the relative position of the beds?

A. I know the relative position, but I don't know just how many feet it would be; but I would estimate it as about somewhere between fifteen hundred and two thousand feet.

Q. Would that be too deep to get the coal if it existed there?

A. Yes, sir.

Q. Mr. Forrester, have you examined the sections given in Professional Paper No. 56 of the coal horizon in this bed between Kemmerer and Cumberland? A. Yes, sir.

Mr. Burke: We object to that as immaterial and not proper redirect examination, not having been gone into either upon direct or cross-examination.

Mr. Kelley: I think, perhaps, Mr. Burke, that your objection that it is not proper redirect examination is good. I reserved the right yesterday to ask Mr. Forrester some additional questions, and I had this in mind, and I would like to recall him for that purpose.

Mr. Burke: On the hypothesis that you now recall Mr. Forrester for the purpose of this portion of his examination, I will withdraw my objection. That gives us the opportunity
1001 of cross-examination.

Q. You may answer the question. Have you examined that? A. Yes, sir.

Q. Whereabouts in this Professional Paper No. 56 do you find a description of the sections of the coal horizon between Kemmerer and Cumberland?

A. On pages 120, 121, 122, 123 and 124 of Professional Paper No. 56.

Q. Have you examined the section shown in the paper for the purpose of identifying as nearly as you could the place along the outcrop at which each section was taken? A. Yes, sir.

Q. And from the sections as given in the paper, would you be able to express any opinion as to the value of the coal beds?

A. Yes, I would.

Q. Would the opinion that you expressed upon your direct examination be in any way altered by the information contained in the Government Folio or Paper referred to?

A. It would not; it confirms most strongly my opinion as expressed in my testimony.

Q. In what way does it confirm your opinion?

A. Because he gets even worse sections that I did.

Q. Are the sections uniformly as shown here of about the same character as those which you have heretofore read into the record? A. Yes, only a little worse in places.

Q. I wish you would read, so as to dispose of this matter and get it into the record at this time, the sections shown in this Folio which refer to this particular segment of the coal horizon.

1002 A. Shall I identify them with my sections as shown in the exhibits?

Q. Yes, if you can.

Q. Can't you proceed from your note book?

A. I believe I can, but I would prefer to identify it on the exhibits, to give particular attention to these sections.

(Witness excused from the stand for a few moments to make comparisons of these sections.)

1003 Thomas V. Davis, Recalled on behalf of defendant.

Direct Examination

By Mr. Kelley:

Q. Mr. Davis, you have been sworn in this case?

A. Yes, sir.

Q. I have here what purports to be a classification of township 21, range 116 west. Was this plat prepared under your direction? A. Yes, sir.

Q. And was it prepared as an exemplification of the original plat as it was found in your record book and referred to here upon this case?

A. Yes, sir, with the exception that the coloring is not exactly the same, because we did not have the same colors.

Q. Well, the classification, as far as the numbers and the legend are concerned, is the same? A. Yes, sir.

Q. What does it purport to be?

A. It is the classification of township 21, range 116.

Q. Classified how?

A. Classifying the coal lands in that township.

Q. By whom?

A. By the Geological Survey of the United States.

Q. Since that time has that classification been withdrawn from your office? A. Yes, sir.

Q. By whose order? A. By the order of the Commissioner.

Q. Of the General Land Office? A. Yes, sir.

1004 Q. Do you know why?

A. No, sir, I do not. We have a copy of the letter here some place, which you might introduce in evidence, withdrawing that classification.

Q. It was simply a formal withdrawing of it?

A. Yes, sir.

Q. So that now this classification is not in effect?

A. No, sir, not in effect. We are not allowing any entries on that township just now of any kind.

Paper marked defendant's exhibit No. 3, on cross-examination.

(Witness excused.)

1005 Robert Forrester, Recalled:

Redirect Examination Resumed

By Mr. Kelley:

Q. Which end are you going to begin at?

A. Well, I think at the north end.

Q. Begin at the north end, then, just the way you went through it before.

A. Upon page 121 of Professional Paper No. 56, sections of coal beds in Frontier formation, entry No. 21, township 20, range 116 west, section 4, the southwest quarter, Mr. Veatch gives a section which corresponds with the section marked No. 2 upon defendant's exhibit No. 5. Mr. Veatch gives, reading from the top downwards: coal, eight inches; shale, eight inches; coal, one foot; bone, two feet, five inches; coal, eight inches; bone, one inch; coal, four inches; bone, one inch; coal four inches; coal and bone, four feet; bone, nine inches; coal, one foot, eight inches.

Q. How does that section compare with your section, read here yesterday?

A. Very much poorer. Shall I read my section?

Q. No, they are in the record already.

A. Upon page 122 of Professional Paper No. 56, section of coal bed in Frontier formation, opposite No. 23, township 20, range 116, section 8, southeast quarter of southeast quarter, this corresponds to the section marked No. 3 on defendant's exhibit No. 5, and Mr. Veatch's section reading from the roof downward is as follows: sandstone, no thickness given; coal, three feet, eight inches; clay, ten inches; coal, ten inches.

1006 Q. How does that section compare with the one which you introduced in evidence?

A. It is very similar in regard to the quantity of coal available. Now, on the same page, 122, and opposite No. 28, township 20, range 116, section 20, northeast quarter of the

northeast quarter, which corresponds to the section marked No. 4 on defendant's exhibit No. 5, Mr. Veatch's section reading from the roof downwards is as follows: coal, six feet, eight inches; sandstone, two inches; coal, two feet, nine inches; bone, three inches; coal, four feet, seven inches; clay and sandstone, nine inches; coal, four feet. That section is more dirty that my section.

Q. Where is that section of Mr. Veatch's taken?

A. At the same place, township 20, range 116, southwest quarter of the northwest quarter, section 20.

Q. You are mistaken; your section is taken in section 17.

A. Well, I have got the wrong one, then. Sometimes there is a variation in the landlines slightly, such as it is here. They are so close to the line that sometimes we will vary in the way that we mention the lines, such as that one there where he might say it was in 20.

Q. Your section was taken near the southern extremity of 17, was it? A. Yes, sir.

Q. In what subdivision of 17?

A. It is on the east line of the southwest quarter of the southeast quarter, right on the line.

Q. And where is this section that you refer to in Mr. Veatch's publication?

A. Mr. Veatch, in his exhibit, he marks it right close
1007 to the north line of section 20.

Q. Is that in the vicinity of where your section marked No. 4 was taken?

A. Yes, sir; the two points are so close together that in running a line or picking out where the section line would come through, you might easily throw it into one side or the other. It is the same section.

Whereupon further hearing was adjourned until 1-15 P. M.

1008 Wednesday, April 22nd, 1908, 1-15 P. M.

Mr. Birch: I have to announce at this time that very unfortunately [—] deems it necessary to withdraw temporarily from the hearing and to go to Boise, Idaho, on business not connected with this case at all, and may be absent today and to-morrow, but I hope no longer.

Mr. Kelley: Before proceeding, your Honor, we have during the noon recess made a blue print of the plate showing the diamond drill borings between Kemmerer and Devil's Glen, Uinta County, Wyoming. This is the plate referred to in Professional Paper No. 56 this morning, and by agreement of counsel it may be substituted in place of defendant's exhibit

No. 20, and later it may be replaced by a plate taken from a copy of the paper.

Redirect Examination of Mr. Forrester Resumed

By Mr. Kelley:

Q. Mr. Forrester, have you correlated the sections shown on defendant's exhibit No. 5 with the sections disclosed in Professional Paper, No. 56? A. Yes, sir.

Q. You had this morning, I believe, correlated down to cross-section No. 4, I think, on defendant's exhibit No. 5. Will you take up the correlation from that point, southerly?

A. There are some maps in this book that I did not check up when I had it this forenoon.

1009 Q. That don't make any difference; just correlate it as near as you can; that don't interfere with the correlation, does it?

A. No, sir. Mr. Veatch's No. 4, township 20, range 116 west, section 32, northeast quarter of northwest quarter, which corresponds with section No. 8 upon defendant's exhibit No. 5. Mr. Veatch's section reads from top downward, as follows: shale roof; coal, one foot, eight inches; rock, ten inches; coal, two feet, eleven inches.

Q. Upon that same section how much coal do you show?

A. I show a six inch band of coal and a two foot, nine inch band of coal.

Q. All right, you may proceed.

A. In Veatch's No. 35, township 20, range 116, section 32, northeast quarter of northwest quarter, Mr. Veatch's section shows no coal.

Q. Have you a section at about that vicinity?

A. There is not a section on the map, but my memorandum which was put in testimony I testified as to no coal in the section, so no section was taken.

Q. So you agree there? A. We agree, yes.

Q. All right.

A. Veatch's No. 38, township 20, range 116, section 32, southeast quarter of southwest quarter, which corresponds with section No. 9 on defendant's exhibit No. 5, Veatch's section reads: shale roof; coal, one foot, four inches; rock, ten inches; coal, two feet, nine inches.

Q. How does that compare with your section presented in evidence?

1010 A. My top band of coal is one foot, two inches, and Mr. Veatch's one foot, four inches. The bottom band of coal we agree upon as two feet, nine inches.

Q. Let me ask you at this point if at the time you prepared those sections shown on defendant's exhibit No. 5, you had any

knowledge of the sections reported by Mr. Veatch in Professional Paper, No. 56?

A. None whatever. Veatch's No. 446 on page 124, Professional Paper 56, township 19, range 116, section 8, southeast quarter of northwest quarter which corresponds to section No. 10, defendant's exhibit No. 5, Mr. Veatch's section reads: coal, nine inches; dirt three inches; coal, one foot, seven inches, dirt, three inches; coal, five feet, six inches.

Q. Is that all? A. Yes, sir.

Q. Where do you say the corresponding section reported by Veatch was, geographically?

A. Southeast quarter of northwest quarter of section 8, Veatch gives it.

Q. Your section No. 10 is reported as on the northeast quarter of the southwest quarter of 8.

A. Well, his section—it is just another case of the division line being so close by that one could put it on the north side of the line or the south side, as the case may be.

Q. They are in close proximity?

A. In close proximity, yes, so that they could be swung to one side or the other.

Q. All right.

A. Veatch's No. 47, township 19, range 116, section 8, southeast quarter of northwest quarter, which corresponds to
1011 the section marked No. 11 upon defendant's exhibit No. 5, Veatch's section, reading from the top downward, is as follows: sandstone, no measurement; dirt, three inches; coal, seven inches; dirt, nine inches; coal, one foot, nine inches; coal, one foot, nine inches; rock, five inches; coal, two feet, eleven inches.

Q. How does that compare with your section 11 read in evidence?

A. He had rather more coal than I have. On the bottom bench I have one foot, seven, and he has two feet, eleven, but he apparently cuts up the rock into the two benches that I do, and make the two feet, eleven equal to my three and half an inch.

Q. How about the upper stratum of coal?

A. He has four feet, seven inches and I have four feet, six inches.

Q. Very well, you may proceed.

A. Veatch No. 48, township 19, range 116, section 8, southeast quarter of southeast quarter, which corresponds with No. 12 on defendant's exhibit No. 5. Mr. Veatch's section reads: coal, four feet—

Q. How does that compare with your section?

A. My lower bench of coal is three feet, three inches; them, upon top of that I have five inches of bone followed by one foot, two inches of coal, which is apparently the section which he represented by the four feet.

Q. Now, is that as far as the sections on defendant's exhibit No. 5 are correlated with the sections shown in Professional Paper No. 56? A. Yes, sir.

Q. Are there intervening between some of the places
1012 where you took cross-sections on the coal horizon, cross-sections shown in Professional Paper No. 56?

A. Yes, sir; there are sections shown upon the second measure and shown on defendant's exhibit No. 5 that are not mentioned in the sections measured by Mr. Veatch.

Q. And also vice versa? A. Yes, sir.

Q. We have those on defendant's exhibit No. 5. Now, if you can conveniently, will you give us the sections in Professional Paper No. 56 within the same northerly and southerly boundaries which are not shown on exhibit No. 5, reading from the paper. Do you understand my question?

A. You asked me to give sections that are in here that are not shown on defendant's exhibit No. 5?

Q. Yes.

A. Mr. Veatch, No. 24, township 20, range 116, section 9, southwest quarter of northwest quarter. Mr. Veatch gives coal no measurement, slate and clay, eight inches; coal, four feet, five inches. In this No. 25, township 20, range 116, section 16, northwest quarter of northwest quarter, Veatch gives coal no measurement, shale, four inches; coal, three feet; bone, two inches; coal, three feet, sir; clay, five inches; coal, six feet, and measuring the six foot bed of coal as two streaks. "No. 26, township 20, range 116, section17, northeast quarter of southeast quarter, Veatch's section reads: sand rock, no measurements; coal, twelve feet; drab fire clay, six inches; sandstone, no measurement; coal, he has it three feet; sandstone, no measurement. This is a section taken at the Diamondville Coal & Coke Company's mine No. 4." Veatch's No. 27, township 20, range 116,
section 17, northeast quarter of southeast quarter,
1013 Veatch's section, reading from the top downward is: "coal, (3)".

Q. What does that mean?

A. I don't know. The next is brown sandstone, one inch; coal, three feet; bone, two inches; coal, five feet, one; clay, five inches; coal, four feet. Veatch's No. 29, township 20, range 116, section 20, southwest quarter of northeast quarter, Mr. Veatch's section reads from the top downward: coal, (burned); sandstone, one inch; coal, two feet, eight inches; sandstone, two inches; bone, four feet, ten inches; sandstone and clay seven inches; coal, no measurement.

Q. What does that indicate to you, no measurement?

A. Either that he saw an indication of coal there which was not worth measuring, or he saw some coal there and could not see the floor, but in that case he ought to say 'coal exposed'. No. 30 of Mr. Veatch's section, township 20, range 116, section 20, southwest quarter of southeast quarter, Mr. Veatch's section reading from top downward: coal, no measurement; dirt, one foot, coal, five feet, eight inches; shale, two inches; coal, five feet, nine inches; shale, no measurement; coal, no measurement. Mr. Veatch's section No. 31, township 20, range 116, section 29, northeast quarter of northwest quarter, reading from the top downward: coal, five feet; sandstone, four inches; bony coal, six inches; coal, one foot.

Q. Now, is that near the place that Judge Birch asked you yesterday to assume the twelve feet of coal?

A. Yes, sir, it is quite close to it; I believe that is about the same point.

Mr. Birch: I asked him for his estimate, not Veatch's.

1014 Mr. Kelley: He did not report twelve feet there.

Q. Then, that hole is about a mile south; it is in the other section?

A. Yes, sir. No. 32 of Mr. Veatch's section, township 20, range 116, section 29, southwest quarter of northeast quarter, reading from the top downward: coal, (3); sandstone, nine and a half inches; coal, three feet, ten inches. Mr. Veatch's section No. 36, township 20, range 116, section 32, southeast quarter of northwest quarter, section 8: coal, partly burned, three feet, four inches. Section No. 37, township 20, range 116, section 32, southeast quarter of northwest quarter, section reads: no coal. Section 39, township 20, range 116, section 32, southeast quarter of southwest quarter, section from the top downward, reads: coal, in part burned, three feet, one inch; rock, one inch; coal, two feet, three inches.

Q. Let me ask you, Mr. Forrester, what is meant by coal burned or partly burned?

A. It is where the coal has been burned out naturally, and there is only the ashes left or part of the coal and the rest represented by ashes.

Q. Does that represent commercial coal?

Mr. Birch: To save time in cross-examination, this coal went from the outside in anywhere from twenty to fifty feet. Mr. Schultz thinks probably in this instance it was burned from twenty to thirty feet, and then the coal begins on the same dip, and if you will have him explain that you will save cross-examination.

1915 Q. You said this burned coal is from natural causes?
A. Usually, yes, sir.
Q. Does it extend down to any great depth, as a rule?
A. Not in pitching seams, not those pitching at any angle.
Q. How far does it extend?
A. Well, in Utah I have had it extend down as much as from nine hundred to ten hundred feet directly to the dip; I have had these burned up areas. I have seen burned areas cropping between two and three hundred acres.
Q. As a general rule how far does it extend in a seam of this character?
A. Well, in a field of this character it wont extend very far; a few yards.
Q. Where you find this burned coal, can you tell anything about the quality of the coal that previously formed the seam?
A. No, sir.
Q. Why?
A. Because there is nothing but the ashes left.
Q. Go ahead.
A. Section No. 40, township 19, range 116, section 5, northeast quarter of northwest quarter. The section reads no coal.
Q. What does that section "No coal" indicate?
A. That is all that is mentioned; there is no measurement made. He just simply says there is no coal. Section 41, township 19, range 116, section 5, southeast quarter of northwest quarter. Mr. Veatch's section, reading from the top downward is as follows: sandstone, no measurement; coal, four feet, ten inches; coal and dirt, one foot, two inches; coal, two feet, two inches. Mr. Veatch's section No. 42, township 19, range 116, section 5, southeast quarter of northwest quarter
1016 section reading from top downward: shale, no measurement; coal, one foot, four inches; rock, eight inches; coal, three feet, three inches. Mr. Veatch's section No. 44, township 19, Range 116, section 5, northeast quarter of southwest quarter; Mr. Veatch's section reading from top downward: coal, burned, no measurment; dirt, one foot, two inches: coal, four feet, one inch. Mr. Veatch's section No. 45, township 19, range 116, section 8, northeast quarter of northwest quarter, Veatch's section reads, no coal, no measurement. That carries the sections down as far as the defendant's exhibit No. 5 goes.
Q. Do these sections verify or controvert your general conclusions as to the unworkability of this coal except at the point where coal mines have been opened?
A. It verifies the sections as presented in all the defendant's exhibits throughout the field, where they were most covered.

Recross Examination

By Mr. Birch:

Q. Mr. Forrester, I noticed that Mr. Veatch's No. 43 was entirely omitted by you in your investigation and report and in your exhibits. Why was that? Will you kindly let me see it so I can verify that?

A. I have not been reading any of the diamond drill holes and that is the reason. This is a diamond drill record, and I have not been reading any diamond drill records.

Q. Why didn't you report the diamond drill records?

A. Because I did not consider it was necessary; it was not a coal horizon measurement and it was not a measurement made by him, either.

1017 Q. In other words, he did not go down the drill holes to make it or to see the coal? A. No, sir.

Q. He took it from somebody else's report?

A. Somebody else's report, yes, sir.

Q. Isn't it what is termed definite coal information; in other words, couldn't you have procured it from the defendant company's record, if you had tried?

A. Not if it had not been for use in the suit; I would not expect it; it would be confidential information. In connection with this suit they have had no objection to giving me the copies of the diamond drill record.

Q. In any event, it showed a very large seam of coal or aggregate of coal seams?

A. Well, I will read it in.

Q. You have read it in, haven't you?

A. I have not read it in, but will read it in.

Q. Well, will you answer my question first; then, I have no objection to your reading it in. A. Very well.

Q. Did it show what is termed definite information at that point of a large aggregate thickness of coal seam?

A. I don't remember without going through the record. It does not show a large, thick vein of coal anywhere in the record.

Q. Read the record, then.

A. Mr. Veatch's section No. 43, township 19, range 116, section 5, northeast quarter of southwest quarter. The section reading from the top downwards: "Below surface ninety-six feet, sandstone, no measurement; coal, three inch-
1018 es; shale, one foot, nine inches; coal, five feet; sandstone, seven feet; sandstone and shale, twenty-seven feet; sandstone, twenty-seven feet; coal, ten feet, four inches; sandstone, sixteen feet, two inches." Under the head of remarks it is stated: "Diamond drill hole; see section on plate 25."

Q. Then, approximately it did show an aggregate of coal seams of about ten feet, lacking two inches of ten feet?

A. The coal in the section would be ten feet, one inch, divided into three beds, of which you might take the upper two as showing one bed, of which we have the following sections: sandstone roof, four feet, three inches; shale, one foot, nine inches; coal, five feet. Separated that from sandstones and shales to the distance of sixty-one feet we then have coal, four feet, ten inches; so that the aggregate coal in the section has no reference as to its workability or its availability for work in a practical way.

Q. I understood you on cross-examination to say that you passed along the outcrop and took all the prospects that you found there in sight; is that correct? A. Yes, sir.

Q. How, then, do you explain Mr. Veatch found a total of thirty-two records and tabulated them in this report, while you only found twelve in the same distance?

A. In the first place I have only shown twelve measured sections. I have noted in the testimony many more sections of openings which were not measurable on account of caving. Second, I believe Mr. Veatch was in there in 1903, measuring those sections, which was a little over a year prior to my visit, and I believe, and it is my impression that if you will compare the exhibits showing the measurements on
1019 the map of the Union Pacific which has been offered in evidence or which is in evidence as one of the complainant's exhibits, you will find that these sections were copied in toto from that exhibit, and marked and recorded in Professional Paper No. 56 as Mr. Veatch's work. It is simply the result of the usual way that the Geological Survey has of gaining data, gaining it from men in confidence and incorporating it in their records. That is the reason why he has so many sections. I don't think he measured half of the sections that are in there, personally.

Q. Well, with the understanding that you are the man who offered this report of his as evidence, and not the complainant, I suppose that you assumed that the Union Pacific investigations and tables are correct and you vouch for them?

A. I don't know anything about that. No, I don't vouch for them; I don't know anything about that. I haven't seen the exhibit, but I think it will appear that Professional Paper No. 56 and the exhibit of the Union Pacific will corroborate each other.

Q. You seem to be familiar with the testimony heretofore given in this case by Mr. Veatch. May I assume also that you are familiar with the testimony of Mr. Griffiths of the Union Pacific?

A. No, you cannot assume that. I am not familiar with it.

Q. You are not aware of the fact, then, that Mr. Griffiths in his testimony corroborated Mr. Veatch as to these various measurements?

Mr. Kelley: We object to that on the ground that it is
1020 not shown by the record, and that the purpose of reading this record of Mr. Veatch's in Professional Paper No. 56 is for the express purpose of contradicting the evidence which Mr. Veatch gave on the stand.

Mr. Birch: Surely. Now, I want to show that it was not properly contradicted; in other words, I want on cross-examination to show that.

Mr. Evans: Mr. Griffiths did not say that.

Mr. Birch: You might use that in argument.

Q. Then, what is your explanation of the fact that you only gave twelve tables of cross-sections?

A. Why, my explanation is that I took every section that was measureable in the vicinity of the lands in dispute.

Q. At the time you measured them?

A. At the time I measured them.

Redirect Examination

By Mr. Kelley:

Q. Judge Birch asked you about why you did not give this diamond drill hole; were you asked anything about diamond drill holes? A. No, sir.

Q. Were you confining your evidence to the horizon?

A. I was confining my evidence entirely to the horizon and the coal prospects on the horizon on the surface.

1021 Q. Are you testifying from what you say yourself?

A. Yes, sir.

Q. In giving your own sections? A. Yes, sir.

Q. Will you look at section 43 in Professional Paper No. 56 and tell me how much coal is in the Kemmerer bed?

A. He does not give the Kemmerer bed distinctly; he just says in the Kemmerer group.

Q. In addition to the holes of which you have made sections, did you examine other holes along the horizon which were blank? A. Yes, sir.

Q. In making your sections did you endeavor to give sections which showed measurable coal?

A. I endeavored to show every measurable section that it was possible to obtain.

(Witness excused.)

1022 Mark Hopkins, after being duly sworn as a witness on behalf of defendant testified as follows:

Direct Examination

By Mr. Evans:

Q. Give your name in full. A. Mark Hopkins.

Q. Where do you reside?

A. I reside at Salt Lake and at Lehi. My present residence is Lehi, Utah.

Q. And your occupation?

A. I am a mine operator and engineer and farmer.

Q. Mr. Hopkins, what, if any, schooling or education did you have along scientific lines, along mining or geological lines.

A. I was educated at the Polytechnic Institute of Brooklyn, New York. They did not confer degrees at the time I was educated and I have never had the benefit of the halo that a degree is supposed to give as to what a man knows or does not know, or possibly has forgotten.

Q. Now, since you left school, Mr. Hopkins, what, if any, attention have you given to mining or geological work, and particularly in coal mining. I wish you would begin at the first, and perhaps it would be better to handle it chronologically and take us right through.

A. Well, I think I might state—I don't think I have so stated—that I am forty-seven years old, and I began my coal mining experience shortly after I was eighteen by leaving my home in Brooklyn, New York, and engaging myself at a coal mine in Lycoming County, Pennsylvania. My first employment there was as material clerk and assisting the local civil
1023 mining engineer or mining engineer who had charge of the mine work. In the course of a year or so afterwards I was taken actively into the operating department of the mines and stayed with them—the concern was J. Langdon & Company of Elmira, New York.

Mr. Birch: Mark Twain's father-in-law?

A. Yes, sir, that is correct. I stayed in the employ of Mr. Langdon and his friends until I left Pennsylvania in 1886. The Union Pacific Coal Department at that time was presided over by D. O. Clark.

Q. Before you came west first—what kind of coal were you operating or working in in Pennsylvania?

A. Well, my experience was mostly in the soft coals, but J. Langdon & Company had hard coal interests in Chimoka and I spent one season there.

Q. You were working in both the bituminous and anthracite fields there? A. Yes, sir.

Q. Now, you may proceed, Mr. Hopkins.

A. Well, I came West under a contract with D. O. Clark, as superintendent of the Union Pacific Coal Department, as his assistant. The organization of the Union Pacific coal depart-

ment at that time consisted of a general superintendent, who was D. O. Clark, with an office at Omaha, and an assistant who took active charge of the mining operations on the lines of the road. I was that Assistant about two years; I had charge of mining operations then which extended from Baldwin in Gunnison County, Colorado, through Como back to Carbon, Wyoming, Rock Springs, Alma over here, and Grass Creek in Utah. Do you want me to go on with the narrative, a
1024 sort of autobiography of coal?

Q. Yes, give your travels.

A. After leaving the service of the Union Pacific Company, I think it was in 1888 or 1889—early in [1899]—I, in company with Fred W. Gray of Omaha, bought some coal land at Rock Springs and we had an unorganized company called Mark Hopkins & Company. The properties are now operated, and have been since operated by the Sweetwater Coal Company, and afterwards the Central Coal & Coke Company. I will say that I sold my holdings there, I think, about 1890.

Q. Did you open up those mines and work upon them or were they opened mines when you got them?

A. Oh, no; we opened them up; we purchased the land and opened them. Then, I leased a property from the Union Pacific Company, after selling the property at Rock Springs, at Franceville in Colorado, near Colorado Springs, and I operated that property for only a few months. The mine foreman that I had taken down with me and set up in business at the mine with a little store, under a contract to produce the coal, died and some of his family died, and I had to send them back to Wyoming here, and about that time I was attacked with typhoid fever, and when I recovered I concluded I would get out of town. The following year I bought some land in Colville, Utah, and opened a mine on that, and I operated there for, I should say, about seven years. Then in the spring or late winter of 1901, Mr. Clark approached me in the matter of taking charge of the development of the Cumberlands, their opening and operation, and I went over there and stayed about a year and a half or something of that kind. I think that brings my coal experience pretty well down to date.

1025 Q. Did you mention the mines at Hopkinsville?

A. I did, yes.

Q. Now, Mr. Hopkins, since your operations, the last, or during the intervals between the various operations that you have given us, have you been practicing or engaged, generally, in examining properties and reporting on them and in work along that line?

A. Yes. I have followed, really, what you would term the duties of a mining engineer and followed the business of a mining engineer continuously. I have spent part of my time in

the last fourteen or fifteen years in the investigation of ore deposits, as well as of coal, in the intervals.

Q. In connection with your work during these years since you left school have you devoted any of your time to the study of geology, of the books of the gelogical mining of coal?

A. Yes, I have followed up the general study necessary to the successful prosecution of that line of business.

Q. Mr. Hopkins, what, if any, similarity is there between these various coal beds that you are familiar with west of the Mississippi, that you have spoken of in Colorado, Wyoming and Utah?

A. They almost invariably occur in what is known as the cretaceous age of the rock, though, perhaps, in varying subdivisions of that age. They possess the same general characteristics as to methods of deposition and conditions of deposition, and they are distinct in a variety of ways from the conditions existing at the time of the carboniferous deposits, which are the coals east of the Mississippi River.

Q. The Pennsylvania coals come within the carboniferous periods?

A. They do yes, sir. The bituminous coals of the East
1026 lie comparatively flat, and they entend through the hills on a flat plane, and you go over the hill and you will find the coal on the other side, that is, in a great many places, and I presume it is facts of that kind which probably influenced Mr. J. P. Leslie to state that it extended through hills and so on. Now, the statement Mr. Leslie made in that way is not applicable practically to the anthracite regions which have been subjected to considerable movement and that sort of thing, but that would apply, perhaps, locally to the carboniferous conditions in a great many instances in Pennsylvania, West Virginia, Maryland, etc.

Q. Do you mean that they are not applicable to the anthracite? You use the word anthracite.

A. Yes, to the anthracite conditions as we find them, because while these original bituminous deposits have been very little disturbed, the disturbance has been very marked in the anthracite districts, often the beds standing practically on edge.

Q. Now, would you say, then, that there is a general similarity in these Western fields that you are familiar with?

A. Yes, there is a marked similarity; in fact, as I say the conditions of deposition and the factors which would control the general conditions found are exactly similar. The only conditions as we meet them now that are different are the fact that for instance your Wyoming coal here—take the southern Wyoming along the line of the Union Pacific particularly—those coals generally stand an angle somewhat above ten

degrees. If you get into Utah, practically on the same horizon you find the beds lying comparatively flat, slightly over five degrees, sometimes flatter than that, but outside that
1027 general present condition there is no rigid condition in the method of deposition or the conditions.

Q. In Wyoming particularly, Mr. Hopkins, how do these coal fields manifest themselves in the ground in its natural condition; how do you determine their presence?

A. Well, you determine their presence, largely, by actual exhibitions of the coal; sometimes you get outcrops; and by the surrounding rock. First, you would not look for a coal deposit in a limestone formation here. The coals of the cretaceous age are always associated with sandstone and shale; invariably; and while all sandstones and shales do not carry coal measures, you will never find them outside of the sandstone and shale areas.

Q. And what do you mean by the term, coal horizon as used, particularly in connection with the Wyoming fields?

A. A coal horizon relates to the stratigraphical position of a coal deposit, and by stratigraphical position I mean its position in the strata relatively in a vertical way; that is, if you make a cross-section of a piece of country showing the different character of the material of which it is composed, you would find on a certain horizon, for instance, a bed of coal, or at a certain point there, forming a line on that cross-section; that would be the stratigraphical position or the horizon of the coal. I think that is plain.

Q. Does the presence of the coal horizon necessarily mean the presence of coal there? A. No, by no means.

Q. What do you mean by coal outcrop?

A. A coal outcrop is the actual exhibition of the coal itself at the point where it is now on the surface. That out-
1028 crop may be and probably is the product or result of erosion; in other words, you find very few, natural or original outcrops. The original coal deposits, portions of it being eroded have left these fragmentary pieces that we still have now. Where the edges of these fragmentary remains show at the surface, that is an outcrop. Outcrop, of course, may be applied to the rocks surrounding the coal or to any material that forms part of the earth's surface.

Q. But when you use the term coal outcrop you ordinarily mean what?

A. Well, the word coal outcrop naturally in a broad sense would mean the coal horizon, that is, where the coal would come to the surface if it existed.

Q. Mr. Hopkins, if you have a coal bed, a coal formation, extending, which you can follow through the country and there is no coal protruding or showing itself, how would you

call that; how would you speak of it as a horizon or an outcrop? A. I would speak of it as a coal horizon.

Q. If following a horizon at places where the coal actually exhibits itself, what would you call that?

A. That would be an actual outcrop of the coal itself, but in a general way—now, coal does not always—in common usage, in common parlance, an outcrop may be not a distinct exhibition of the real coal itself. Now, an outcrop may consist of a streak only an inch thick; that may be all that you would have showing of the bed; still it would be called an outcrop.

Q. Or blossom?

A. Yes, or blossom; blossom is generally designated as the disintegrated, weathered stuff which is shown on the surface.

1029 Q. I want to get that clear in the record, so that we will know what you mean by outcrop and horizon in the distinction which you may draw referring to this particular field.

A. In common usage the word outcrop as I will have to use it intelligently answering the questions that may be asked here will be that it is what there is of the coal seam, whether it is an inch or ten feet; it must be used in that way.

By Mr. Birch:

Q. The showing?

A. Yes, any kind of a showing; a coal bed, of course, may be only an inch thick, and still it is a coal bed and it may have an outcrop.

By Mr. Evans:

Q. Now, in prospecting a coal field or a country for coal, what do you require in the way of a showing along the coal horizon before you would consider it worthy of prospecting at all?

A. Well, an outcrop must of necessity show owing to varying conditions. In a field like this under discussion it would be necessary to have at least five feet of clean coal exposed with a good roof and a good floor. By good roof I mean a substantial one that would stay up without excessive timbering, and by floor, I mean a hard shale or sandstone floor that would swell and crush and squeeze.

Q. If you have a coal horizon or vein going through the country, why would you not regard the portions of it as worth prospecting—the portions which do not show coal or coal in quantities and under the conditions that you have just given?

A. Well, the coal fields in general are not continuous in thickness or in quality of the coal, that is, in the thick-
1030 ness of the beds or the quality of the coal, and there are wants and troubles of various kinds, faults, etc., that occur, and if I was walking along an outcrop, and I saw a place on the coal horizon where the coal bed should outcrop that did not exhibit and expose the coal, I should consider that the outcrop at that point was the outcrop of a want. Now, there comes in this question of erosion. You can erode —knowing by going to the deep that you run across these wants and that sort of thing, of necessity the erosion would not terminate all those wants, the erosion of the face of this outcrop, so that you could have the outcrop of a want as well as the outcrop of a coal bed with the coal in place, and the avoidance of the places where the coal does not show in that way would be warranted by the apparent absence of the coal.

Q. Then, as I understand you, where there is a poorer and insufficient showing along the coal horizon, you would not regard those places as worthy even of prospecting. Now, Mr. Hopkins, if you find a good outcrop, what have you to say as to the sureness of the development below that as to being commercial or profitable?

A. Well, there is absolutely no assurance from the exhibition of a coal seam at one point, that it will be continuous of the same thickness, or a bed of the same quality of coal, even. There are rapid changes in quality which occur in very short distances, and the same applies to the thickness of the beds.

Q. Mr. Hopkins, I believe you stated that under the Union Pacific employment you were in charge of the operation of the two Cumberland mines, south of Diamondville, for a while?

A. Yes, sir.

Q. How long were you there?

A. Nearly two years, is my recollection; probably twenty months, I think, would be close to it.

1031 Q. During what period?

A. During 1901 and 1902, until the fall of 1902. The period of employment would begin, probably, in February, 1901, and end about September, 1902, I should judge, something like that.

Q. Through that employment did you become familiar with the underground workings and showings exhibited by them at the Cumberland mines?

A. I had active charge and direction of the entire work there, both in the mines and on the surface.

Q. And through your employment there, what, if any, familiarity did you acquire with the conditions on the surface as to this coal horizon and outcrop from Diamondville south, say, or from Kemmerer south?

A. Why, I travelled this outcrop during this period from Hilliard north to beyond Willow Creek several miles, and I looked the country over, I thought, pretty carefully. When we had begun the development of the Cumberland mines as they were then, that is, No. 1 and No. 2, the large mines, the company decided, or Mr. Clark decided that he would require at least a thousand tons a day for the needs of the market from that point. I suggested at once the liability of trouble occurring in coal mines in general,—not all, of course, physical, but some of them which might occur through accident or otherwise, and recommended the opening of a third mine right at the same time that we were developing these others, practically, or shortly after we had begun development. He asked me to look over the country with that object in view. We also put in a diamond drill at that time, drilling in the territory south of No. 1 mine, immediately of Cumberland No. 1, and I will say that the result of my investigations there did not
1032 warrant the recommendation of a point at which to open a mine.

Q. Well, I will take that up with you a little in detail afterwards, but through that employment you were familiar and became familiar with this outcrop?

A. Yes, sir.

Q. From Hilliard to a few miles north of Willow Creek?

A. Yes, sir.

Q. How far south of Diamondville is Hilliard, or take it at Cumberland?

A. Why, roughly, thirty-five miles, I should say.

Q. From what point?

A. From Cumberland No. 1.

Q. And then how far north from Cumberland No. 1, approximately, would be this point a few miles north of Willow Creek that you spoke of?

A. I should say thirty miles; twenty-five or thirty.

Q. Your knowledge and acquaintance, then, has covered a distance of some sixty or sixty-five miles of that outcrop?

A. Yes, sir.

Q. Mr. Hopkins, when were you employed in this case?

A. Well, it seems to me that the matter was mentioned to me last fall, I believe, and I have forgotton just who it was who mentioned it, but my employment in this case has dated from the 5th, or about the 1st of April, for this suit.

Q. Your definite employment? A. Yes, sir.

Q. And for what purposes were you engaged?

A. I was engaged for the purpose of investigating the coal fields here and giving such testimony as the result of my investigations warranted.

1033 Q. Now, were you given a description of the lands that you were engaged to examine and determine whether they were coal lands or not? A. Yes, sir.

Q. And were you limited or directed at all by the terms of your engagement as to how you should make your investigation?

A. Not in the least. My course of procedure in all cases of that kind is to outline my own work and what I desire to do and what I think necessary to do in order to get at the facts. I am not accustomed to be dictated to by anyone or guided by anyone in matters of that kind.

Q. Were you in this case?

A. No, sir. If any effort had been made in that way I believe I should not be here.

Q. Now, outside of your employment in this case, Mr. Hopkins, have you now or have you had at any time any business connection with the defendant in this cause, the Diamond Coal & Coke Company?

A. No, sir; I have never been connected with them in any way, shape or manner.

Q. Or any of these corporations that have been referred to as the holding companies or connected with the Diamond Coal & Coke Company; I refer to the Montana Mining corporations.

A. No, sir. I will say in that connection that I have no friends to please nor enemies to punish in this matter; it is merely a professional matter with me.

Q. You have no interest at all in the case or its outcome?

A. No, no such interest whatever.

1034 Q. Now, what did you do, Mr. Hopkins, first in the way of making a surface examination in connection with your employment in this case?

A. On arriving at Diamondville, the first afternoon we spent in an investigation of the underlying measures below the Oyster Ridge, going a mile or two beyond the water-fall to the east, and that night, which was Monday night—the next day it snowed and the ground was covered with a coating of snow so that it was practically impossible to do any further field work outside. We had planned among ourselves, in outlining what we thought we should do in order to get a fair knowledge of this territory, of course, to take in the mines which showed the development of that coal seam in the only way in which we could get to see it, and so we took up on Tuesday the mine investigation, visiting and spending the day in the No. 1 mine. The next day we visited and spent the day in No. 2 mine, and the next day we visited and spent the day in No. 4 mine, and the following day we took horses and travelled south from Diamondville toward Oakley, and over, crossing

the railroad—the Wyoming Western Railroad, near Glencoe Junction—and took the old, overland road between Ham's Fork and Evanston, passing over these lands in controversy; in part this old road runs over these lands in controversy, and we picked up some of the land corners on our way in order to identify our locations ourselves, and we should do that; that is customary. Then, we rode across to the southern boundary of the land in question, and took up the horizon or outcrop, or whatever you choose to call it, and from there rode north on the outcrop itself, following the sinuosities of the crop until we reached the proposed No. 5 mine of the Diamond Company, which is just about half a mile or a mile south of No. 2 mine and then we rode home; it was getting rather late at that time. I will say that on the out-
1035 crop we took sections at every incline or prospect pit that gave a reasonable presentation of the outcrop of the coal bed, and while noting some of the numerous holes and pits and inclines in which coal did not occur, I suppose we passed probably twenty or thirty or forty blank holes and small inclines and that sort of thing, to which we paid no attention, they were so numerous. Of course we could hardly make a section of all those pits, and describe all intelligently in their correlation to the coal outcrop.

Q. You say you paid no attention to them. Did you look at them sufficiently to see that there was no coal showing in them?

A. Oh, yes, we looked at them carefully as far as we could see them, and also as to the debris that had been taken from the openings, and in case where they showed any coal at all we made an effort to get some kind of a look at them, but the sections that we give are selected as the best showings we could find on that outcrop.

Q. Now, did you make, in your opinion, a sufficient examination of the surface of the mines in controversy and of the coal horizon to the east of that to enable you to form an opinion as to the character of the land and of the horizon and outcrop?

A. Yes, sir, I did. I consider that our investigation was as thorough as could be made by anyone, and the data that we gathered was all the data that was available or is available to anybody.

Q. You went over the outcrop, as I understand it, and examined every hole that you could get into? A. Yes, sir.

Q. And the surface between these holes? A. Yes.

1036 Q. You speak of "we". Who were with you upon this examination?

A. Robert Forrester and Dr. J. E. Talmage, Mr. Sales and Mr. Shurick, and part of the time Mr. Whyte and Mr. Snedden. The latter, however, had a wagon conveyance, which did not permit of their following the lines as closely as we did on horseback.

Q. Were you being taken around the country there on the outcrop, or were you taking your own course?

A. Oh, we took our own course entirely; they simply merely accompanied us. There were, however, one or two points that we were desirious of picking up, which we might have missed, and those were particularly the drill holes, which are not on the coal horizon, you see, and with nothing particular to identify them out in the flat land there. We would not have known where they were, probably, but outside of details of that kind they were merely accompanying us.

Q. Now, Mr. Hopkins, will you describe the general formation and lay of that country in which is situated these lands in controversy, the lands beginning with section 18, township 20 north, 116 west and including the two 80 acre tracts in section 18, township 19, 116 west, and give a general description of the formation and the country there generally and also of the coal horizons that lie on each side of that country which would have any bearing at all upon the points in controversy.

A. There is a prominent ridge lying east of the coal horizon here, or upon which the coal horizon itself occurs toward the base, which, being a few hundred feet high, extends in an absolute line practically throughout the extent of the territory mentioned in the question, and that ridge is termed Oyster Ridge on these exhibits of the complainant in
1037 this case. That ridge is cut at intervals of every four or five miles by a gorge or ravine cutting it in two and breaking back through it into the little valley that occurs behind it or east of it.

Q. Beginning at the point named here, the Ham's Fork breaks through this Oyster Ridge, and the territory to the south of Ham's Fork and to the west of Oyster Ridge is a valley, smooth in character—that is, I mean it has no rocky surfaces or no rock exposed in it of any kind; it is practically a flat valley, with drainage to the south. In going from Ham's Fork into this valley, you climb a moderate sized hill of a few hundred feet, and you get in the head of the valley by doing so, and as you go to the south the [the] valley gradually slopes to the south as you go down, the valley all drains into the Muddy. The valley is bounded on the western side—I will say here that the valley is several miles wide—it has for its

western boundary a later formation with a similar dip to the west, or a very similar dip to the west, and that also is carrying a poor grade of lignite coal.

The interval between these two coal bearing horizons seems to be devoid of any valuable deposits of coal or any mineral for that matter, and this land in this valley is a fair, ordinary grade of western grazing land, perhaps a little short of springs and that sort of thing which are desirable, but it is a fair grade of grazing land. While I am speaking on that subject, let me say that while at Cumberland, the Union Pacific owned the Whitney ranch there—

Q. I was going to ask you, before you leave that the coal beds that you have spoken of on the west of the valley, are these the Adaville beds?

1038 A. They are commonly called the Adaville beds, yes, sir.

Q. And they dip to the west also? A. Yes, sir.

Q. And have they any possible relation or bearing on the question of the character of these lands in controversy, lying in the valley?

A. None whatever. That measure is entirey eroded, and it is the erosion and loss of that measure which makes this valley between the Oyster Ridge and the ridge caused by the outcrop of these later sandstones.

Q. The lands in controversy are all in this valley that you have been describing, are they not? A. Yes, sir.

Q. What is growing on the surface of the land?

A. There is the ordinary, wild bunch grass and sage brush on the knolls and in the little mud flats, where there are depressions in the lands such as would grow naturally in that class of territory.

Q. Did you observe the presence in noticeable quantities of what is commonly known as alkali, the white efflorescence?

A. No. There is some of the white alkali, white efflorescence, as you call it, in some of those little sink holes where water has accumulated and evaporated and left a residue, but the soil, itself, of the valley is not impregnated with alkali.

Q. Now, in your opinion, Mr. Hopkins, would this ground prove fair agricultural ground or not if water were brought upon it; I mean by agricultural, for the raising of crops, hay or other crops?

A. I should say that hay and oats could be raised on the land in question with irrigation.

1039 Q. Now, has there come under your observation any illustration in that immediate neighborhood of what can be done in cropping similar lands with water?

A. On the Muddy, a short distance south of the lands in question, within two or three miles, in fact, there are several ranches, and some of them draw the water of the Muddy, but the nearest ranch would be the Whitney & Chambers ranch near Cumberland, and that was bought by the Union Pacific, to acquire the water rights for town purposes there. However, we ran the ranch while I was there, and the first season we cut some four hundred and fifty tons of hay off the ground. We planted a small crop of oats, which we cut before maturity, and used as oat hay; cut it in the milk as they call it, and made oat hay of it. The hay that we cut there was largely timothy hay, although it had considerable foxtail in it, etc., but I should say that we had probably four hundred acres under cultivation; we must have cut something around a ton to the acre, of hay.

Q. That is a fair crop, isn't it?

A. For the condition, yes, sir.

Q. And the land of this Whitney, Big Muddy ranch, was of a similar character of these lands?

A. The lands of the Whitney & Chambers ranch showed considerable alkali in the soil itself, although I should say comparatively that it was bottom land, that is, along this stream, and it really was inferior land to this land in question.

Q. Mr. Hopkins, is there any coal cropping or coal horizons or any other indication of coal itself upon any of these lands in controversy? A. No, sir.

1040 Q. If there is any coal underlying the lands at all, from what horizon or coal beds does it reach the land?

A. The nearest known outcrop of any coal beds that would extend under this land in question are along the foot and sides of the Oyster Ridge to the east.

Q. And in what beds or bed or horizon, how would you distinguish it?

A. Well, my knowledge of this coal field acquired over a number of years of investigation and acquaintance leads me to say that there is but one workable bed, now developed by actually operating mines, and those mines are the mines at Cumberland and the mines at Glencoe and at Diamond and Oakley and at Frontier. The new developments which Mr. Quailey has made for the Kemmerer Company has made north of there is beyond my knowledge. I can assert that at one time a bed very much lower than the measures there was attempted to be worked by the Union Pacific at Spring Valley; those mines were abandoned, and Mr. Quailey has, in an indifferent way, as I understand it, developed a bed somewhat in the vicinity or on the horizon between this Kemmerer bed and the Spring Valley, at Willow Creek, but it is not an actu-

ally producing mine; it was merely prospecting development, and when I was there was showing very marked, poor quality generally; from the roof large boulders would hang down, and while it might be six or seven feet at one place, ten feet away it would not be over four feet.

Q. Then, the coal horizon or coal bed that you consider of commercial value, which should be taken into consideration in connection with the determination of the character of the mines in controversy, is this horizon upon which are situated the Kemmerer-Diamondville-Cumberland-Frontier mines?

A. Yes, sir.

1041 Q. Now, you have already stated about going over this outcrop and taking sections. What have you to say as to whether these sections which you have taken were fairly selected and are representative so as to give a fair idea of the character of the outcrop or horizon?

A. As a rule, the location of the pits that we were able to measure and of which sections have been here presented as exhibits—those openings are so located that they give a fair representation of the coal bed on that horizon.

Q. And in connection with them, if you had presented also a map or pictures of these numerous holes which show no coal at all, would you get a poorer or better representation of the coal horizon than is presented by these sections?

A. It would be distinctly unfair to present the matter in that way, because it would have a highly injurious effect upon the general opinion of that coal field, to present the numerous holes in which no coal is shown. Those holes occur—in some places they are only a hundred or two hundred feet apart, and are continuous along there between these holes of which sections have been given. It is true that a great many of those holes may not have been sunk deep enough or were not prospected far enough to have gotton a fair representation of the coal bed at the points at which they were located, but most of those, had there been coal present, would have shown coal. Of course, in prospecting you will find some holes that are located not exactly as they should be in relation to the coal horizon; that is, they may be a little too far ahead or a little too far back and that sort of thing, but I am speaking generally of the holes that are placed properly, so that if the coal were present, it would appear.

1042 Q. You think there are sufficient there to test the horizon?

A. Oh, yes, yes, absolutely.

Q. Now, Mr. Hopkins, will you give us, and in doing it you may use such notes as you made yourself in the field or since, a description of this coal horizon, beginning at the point

where you commenced at the north and extending down to your limit upon the south, and in connection with that give us the sections which you made as you come to them.

A. Let me ask, do you desire that I read the sections?

Q. Yes, I think you had better read each section as you come to it.

Mr. Birch: What is the need of doing all that? I dont want to criticise your question, but merely as a question of saving time, what is the use of it as long as Mr. Forrester read them?

Mr. Evans: Of course, if there was any mistake made in Mr. Forrester's readings, I dont want Mr. Hopkins swearing to some error.

Q. You were present when Mr. Forrester was reading these sections? A. Yes, most of the time.

Q. And before coming here, before they were prepared, you had examined and checked each section, had you not?

A. I checked these prints, these black prints, but not as closely as I might have done. I have never seen Mr. Forrester's notes, from which these were prepared, but I should assume that they would be practically similar, because we took
1043 these sections jointly and at the same time, and at times debating how much bone there was and all that sort of thing, so that they should be uniform.

Q. Well, I think I will have you read them; it will not take very long, taking the outcrop beginning at the north and coming down and give your sections from your notes as you come to them and tell what the outcrop shows as to the promise of coal beneath.

A. Beginning at the hole marked No. 1 on defendant's exhibit No. 5, which is situated between the No. 1 and No. 3 mines of the Kemmerer Coal Company, which is the natural exposure of the Kemmerer-Cumberland coal bed or outcrop of it, the section measured is as follows:—I cannot give you that location exactly by section and that sort of thing, but it is probably about the line between sections 12 and 13, township 21 north; it is somewhere in this vicinity, (indicating on map), the section there taken, beginning at the roof was, shale roof, indefinite; bone, five inches; sandstone, two inches; bone, two inches; coal, one foot, ten inches; bone, seven inches; coal, one foot, two inches; bone, eight inches; coal, eight feet, eight inches; light colored, clay shale, eight inches; dark shale, five inches; light colored shale, two feet, three inches; sandstone floor. Now, does that agree with his section; if you could just keep tract of each exhibit and check it would be better.

Q. Now, what does that indicate commercially as a practical proposition as to coal there?

A. Well, commercially, that is a very good showing and would warrant the development or further investigation.

Q. Do you know through what mine that ground is be-
1044 ing or has been worked; that would be directly west of the point where this section is taken.

A. I missed the question, because I do not like the position of this gentleman (Mr. Schultz). He is in my light, and I dont care to have him looking over my private notes.

Q. Are there mine workings west, lying opposite this first section, and if so, what mine?

A. That is the No. 1 mine of the Kemmerer Coal Company, one of the extensive mines of the district.

Q. Now, going south from there along the country there, until you reach your next section, what is the character of the outcrop, do your recall; have you made any notes of it?

A. Yes, I have made notes; following the crop and passing the No. 2 mine which was closed, and of course we didn't get into it—

Q. No. 2 Kemmerer?

A. No. 2 Kemmerer or No. 3, I have it in my notes here—that is following the crop southerly—you see this is going against the line which we actually travelled.

Q. I know it is, but that wont take long.

A. Well, I will say that the outcrop beyond and south of No. 3 mine of the Kemmerer Coal Company was followed, and it showed the occurrence—there were a number of natural exposures on that crop, but they showed almost invariably a brownish shale and a little streak of coal toward the bottom of the exposure, probably six or eight inches. It seemed that the coal bed was apparently wanting, at least, on the outcrop.

Q. It was not a promising outcrop shown along there?

A. There is no outcrop of any value below and south of Kemmerer No. 3 mine until you reach a point below the
1045 town of Kemmerer on the outcrop, which would be opposite the railroad bridges there. There is a hollow which puts up there, called Jenkins Draw, and along in there the outcrop begins to show a fair thickness of coal. That is probably half a mile or so, or three-quarters of a mile, at least, north of the Diamondville No. 1 slope.

Q. Now, there has been testimony in this case by a Mr. Henderson as to a want half a mile or so south of Kemmerer No. 1, as I recall it. How would that correspond with this outcrop which you have been speaking of?

A. The outcrop that I have been speaking of is north of Diamondville No. 1.

Q. I say south of Kemmerer No. 3.

A. Well, I just stated that the outcrop shows there that there is an apparent absence of the coal at the surface, and as that is the only indication we have outside of the mine worked adjoining it, I should say there was an absence of commercial, workable coal throughout that district.

Q. Then, if the testimony shows a want of a mile and a half or so in there under ground, it is what you would expect from the showing on the outcrop?

A. It certainly is.

Q. Where is your next section going south?

A. Travelling southerly from mine No. 1 of the Kemmerer-Cumberland horizon, passing mines Nos. 1 and 2 of the Diamond Coal & Coke Company, we reach the proposed No. 5 mine of the Diamond Coal & Coke Company. This proposed mine was the point at which they sank a slope about four hundred feet in a prospecting way, in an endeavor to find out whether the coal was valuable there or not. We go a short distance down this old incline, I should say about forty
1046 or fifty feet, and there we took a section. I will say that the roof was badly caved and we had some difficulty in absolutely reaching the floor, but we did reach the floor. That section is No. 2 on defendant's exhibit No. 5.

Q. Now, will you give that section, Mr. Hopkins?

A. Check me and see if I get it right. Clay shale roof, six feet exposed; bone, two inches; coal, six inches; bone, three inches; clay shale, five inches; coal, one foot, one inch; clay shale, two feet, four inches; coal, one foot, three inches; bone, eight inches; clay shale, one inch; coal, four feet, the lower portion worthless on account of the dirt it contains in an irregular way.

Q. How would you denominate the lower coal; what would you call it?

A. Well, the absolute bottom of this lower bench, it has been designated by the previous witness as bastard coal.

Q. Mr. Forrester used the term, bastard coal. Would this coal come under that description?

A. This coal here would come under the description of bastard or worthless coal.

A. About how much of that four foot seam was the bastard or poor quality?

A. I should say at least half; from my notes here I see I have designated half of it.

Q. That is the way the section shows. What have you to say as to that being a commercial showing?

A. That is not a showing—of course, in taking this matter, we took all the facts that we could absolutely find ourselves, and then made inquiries in addition.

1047 Now, the results of our inquiry in relation to this prospect was that at the end of the four hundred feet, driving in a westerly direction on the dip, there was practically little left of the bed, and directly in front of this about six hundred feet on the line of this incline in a drill hole marked—I am under the impression that it is No. 3, and it is about six hundred and fifty feet west of this end line of this incline, and it is on the horizon that this coal bed would occur. In that drill hole only a very few inches of coal were found. In this connection I think I had better give that; it is drill hole No. 4, and west of the Glencoe water tank on the southwest quarter of the southwest quarter of section 4, town 20 north, range 116 west, six hundred and sixty-five feet west of this No. 5 mine prospect opening. The top of the hole is one hundred feet above the outcrop at this prospect opening. The dip of the strata at the outcrop is nineteen degrees. The coal horizon would occur in the drill holes at three hundred and twenty-eight feet from the top of the hole, and the representative coal deposit of the bed or horizon is found at three hundred and twenty-six feet from the top.

Q. Mr. Hopkins, I wish you would give the commercial possibilities as shown by section No. 2 there on the surface of that outcrop or horizon.

A. Now, in arriving at a conclusion of that kind, I used three factors; I used this prospect about four hundred feet long, I used the diamond drill hole No. 4 to the west of it and I used the investigations made in mine No. 2 at Oakley, which is to the north of the westerly line of his mine, in forming my conclusions as to the land to the west of this opening.

Q. What were your conclusions?

1048 A. I will say that the conclusions reached from those three factors—they would lead one to believe, or led me to believe and lead me to express the opinion that the land directly west from that point is not valuable coal land and would not be so considered by either a practical man or any other disinterested party.

Q. You mean not of value as coal land?

A. Yes, sir.

Q. Now, continuing south on the outcrop between this section 2 and the next one which has been presented here as shown by your notes, what was that?

A. I have an outcrop incline, a rather short incline, about half a mile north of No. 4 mine, of the Glencoe mine, near the northeast corner of section 17, township 20 north, range 116 west. That hole or section is marked No. 3 on defendant's exhibit No. 5.

Q. Have you any recollection of the showing on the coal horizon on the surface between those two openings.

A. There were a number of shallow pits which had been sunk there, disclosing practically nothing. There was some littel outcropping there, but not of any importance; it was not sufficient to note. I will say that the holes that had been dug along there, that if the coal had been there in good condition or as it shows at the No. 4 mine, they would have disclosed it.

Q. Now, give the next section south of No. 3 on exhibit No. 5 as observed by you.

A. The note that I have on that is that it shows three feet of coal with a shale roof, and the floor not exposed. A line drawn westerly from this hole or incline would pass to the north of the northernmost entry in No. 4 mine.

Q. What does the showing in that hole indicate?

1049 A. Well, the showing in that hole, might possibly be workable, because we did not get to see the floor. I do not think, from what could be seen, that the bed at that point would be a workable bed; I am inclined to think from the general surroundings there that there is about three feet, six inches of coal, and that would not be a workable bed.

Q. A good roof? A. Yes, the roof was fair.

Q. Continuing on south with your horizon, what can you say as to the horizon, between that and your next section going south, which would be No. 4 on exhibit 5.?

A. Yes, sir. The horizon to the south of this section No. 3 just given—in following that, there are a few shallow pits on the crop there showing no coal outcrop, but they are of no importance; that is, they are not sufficiently deep to have exposed the coal if it had been there. When we reached No. 3 mine of course I have sections of that which show a coal bed of workable thickness. Going on south of that, beyond the mine, to the prospect designated as No. 4 on defendant's exhibit No. 5, the bed there shows as follows: four feet of sandstone; seven inches of shale and coal, mixed; two inches of clay shale; coal, seven feet, eleven inches; shaley coal, two inches; argimmaceous sandstone, one inch; coal, four feet, nine inches; shale floor.

Q. In your widest streak of coal there, your seven foot, ten inch streak, are there any interruptions, any lenses?

A. I have not so noted. I consider the bed as exhibited in this short incline as a very fair showing, and one that would warrant one in further development. I will say that the hole is located east from the southerly working of No. 4

1050 mine. We have the 5th south entry of No. 4 mine directly west of it. I cannot, without considerable trouble, refer to that at this time unless it is necessary.

Q. All right; I will call your attention to it when we get to the underground showing.

A. Yes, sir, when we get to the underground showing directly west of it.

Q. The indications in this surface hole are promising as to the coal below? A. Oh, decidedly so.

Q. You would call that a commercial showing?

A. Yes, sir.

Q. Now, going on south again along the horizon what comes next?

A. In passing on south we pass a number of barren holes which I have noted; some of them are claimed not to have been barren, and they did show some coal on the dump. For instance, at a point about the middle of the northwest quarter of the southeast quarter of section 20 there are two pits—well there is a series of three open cuts, and upon these nothing was to be measured on account of their being caved. They are right along the road at that point, and Mr. Snedden happened to be with us at this time, and he informed me that in one of those places the vein was nearly seven feet, with a number of bands, and eight inches of shale next the roof, and that the roof was bad. About in the southwest portion of the southwest quarter of the southeast quarter of section 20 there was a hole or shallow outcrop open pit in which Mr. Snedden said—

Q. Well, just what you observed yourself.

A. There was an outcrop of soft coal there he said.

1051 Going on south, in the southwestern portion of the southwest quarter of the northeast quarter of section 29, township 20 north, range 116 west, there was an incline which had caved so badly that I was unable to measure a section there, but the coal shown on the dump and in the dirt excavated, indicated very little coal. The same would apply to another hole occurring just south of that one; practically no coal in those two holes.

Q. Close to the center of the section?

A. Yes, very close to the center of the section. There was very little coal in this hole. According to the amount of work done there, there could not have been more than a foot of coal disclosed in either of those openings. Going on south to where section No. 5 on exhibit No. 5 was measured, the following section was taken: clay shale, three feet; bone, eight inches; coal, one foot, poor quality; shale, soft and frost bedded and light yellow, one foot, two inches; coal, three feet, eight inches; bone, three inches; soft shale floor. In qualifying the statement as to coal in the lower bench of three feet, eight inches, I wish to state that iron stained lenses or nodules occurred frequently in that bench of coal.

Q. What is the indication from this hole that you have just given as to the vein below?

A. The section of the coal bed at this point would not warrant anyone in opening a mine on the showing, and would be unworkable as a mining proposition if it were opened.

Q. You can proceed south along the horizon.

A. Going south, south of section No. 5 last given about three hundred feet or a matter of that kind, another
1052 opening is shown from which section 6 on defendant's No. 5 was taken. The section there measured, reads as follows: shale roof; dirty coal, six inches; good coal, one foot, one inch; sandstone, nine inches; coal, three feet, eleven inches; soft shale floor, two inches and sandstone occurring immediately underneath; a soft floor.

Q. What does that showing indicate to you?

A. I want to qualify, if I may, my section as just read. I see opposite the lower bench I again note those calcareous, sandstone nodules I have spoken of in a previous section. This outcrop—this is an incline driven down one hundred and sixty-six feet to the west, according to Mr. Snedden; it is filled with water to within sixty feet of the surface, where this section just given was measured, at the surface of the water. There is no question in my mind as to the unworkable condition of the coal bed at this point as disclosed, and that it is not commercial in value for coal purposes.

Q. Proceed, going south.

A. Proceeding on southward to an incline of which the section taken at that point is numbered 7 on this defendant's exhibit No. 5, the following section was taken: shale roof; four inches of coal; three inches of bony; coal, nine inches; bone, two inches; sandstone, six inches; coal, six feet, three inches; sandstone floor. I again note at this point the occurrence of lenses or niggerheads of limey sandstone, occurring in the lower bench of the coal.

Q. Could you tell the extent of those lenses from the showings disclosed?

A. They were of various lengths; some of them were rather roundish, others were lenticular, several feet in extent.
1053 Q. What bearing would they have on the vein as a workable proposition?

A. They merely increase the difficulties of mining and decrease, of course, the quantities of the coal. They are met with not infrequently in all mines, though, but occurring in a bench of three feet, six inches of coal, they have a good deal of effect upon that bench. If they were occurring in a ten or twelve foot seam they would not have the materiality that they have in these low coals. The section given here as No. 7 was measured in an incline which is driven westerly and is seventy feet deep; I will say that I have been rather neglecting the dips taken at these points, and I don't know that that is desirable.

[A.] Yes, I wish you would read the dips. I want to ask you about those.

A. The dip at this point, as measured was twenty-four degrees.

Q. That is No. 7?

A. No. 7. Now, about four hundred feet south of incline No. 7, an incline is driven down forty feet on the dip and in the proper location, and shows no coal. Going southward to a point located just west of the quarter corner on the section line between 29 and 20—is that right—it is between 29 and 32, near the south line of section 29—the quarter corner on the south line of 29—the following section was taken, which is marked No. 8 on defendant's exhibit No. 5: sandstone roof. I want to qualify that. That is not the roof; the sandstone is the starting of the section. Thence five feet, eight inches of clay shale forming the roof; four inches of bony; six inches of coal; eight inches of bony; seven inches of sandstone; two inches of
1054 black shale; two feet, nine inches of coal; sandstone floor.

Now, I will say that this section, according to my observation, which I have been able to make, agrees with the section as given by Mr. Veatch as No. 34 on page 123 of his Professional Paper No. 56.

Q. Well, I think I will ask you about those separately; there will be some others which you will want to check up?

A. Yes, but I did check this one. Now, then, at this point, the coal bed as shown by this section No. 8, is undoubtedly commercially of no value. The dip at this point was thirty-seven degrees westerly. Thence southerly about five hundred feet in a sort of southwesterly direction to drill hole No. 2. Isn't that drill hole an exhibit in this case?

Q. Yes; you refer to the fourth Diamond Company's drill holes.

A. Yes. The reason I asked for that is I desire to check the number of that hole by getting the location of it. Well, at the risk of not being absolutely correct, I will give the exact location of the collar of that hole.

Q. Here is the blue print.

A. The location of that diamond drill hole, which is No. 2 on this blue print, is in the northeast quarter of the northwest quarter of section 32, township 20 north, range 116 west, with a total depth of two hundred and thirty feet, and about four hundred and seventy-five feet west of the outcrop at the nearest point easterly from the collar of the hole. It is thirty-six feet below this nearest point on the coal horizon crop, and the dip of the strata is twenty-four degrees, and the coal horizon would be one hundred and seventy-five feet below the collar of that hole. That is the Kemmerer or Cumberland working on
1055 the same horizon and the representative coal deposit of the Kemmerer-Cumberland bed presumably is shown in

this hole at a depth of one hundred and seventy to one hundred and seventy-one feet. The conclusion that I draw from the result obtained in this drill hole is that the Kemmerer-Cumberland coal bed is practically wanting at that point. The location of the point at which the next section was taken on the Kemmerer-Cumberland coal horizon was in the northeast portion of the southeast quarter of the southwest quarter of section 32, township 20 north, range 116 west, and the work shown at this point is an incline ten feet under cover, driven westerly at a dip of thirty degrees, and the section taken at the face of that incline was as follows: a rather massive sandstone roof; one foot, two inches of coal; four inches of bone; five inches of clay shale, black; two feet, nine inches of coal.

Q. What does that indication mean to you, that showing?

A. The showing of the coal bed at that point is one which shows a coal bed of no commercial value whatever. I have an idea in mining these holes, if the coal had warranted further investigation, that these holes would probably have been driven deeper. Thence southerly to a point at which section No. 10 on defendant's exhibit No. 5 was measured. The work done at the point at which the measurement was taken consisted of a fifteen foot incline to the west on the Kemmerer-Cumberland horizon or bed, and the section was as follows: clay shale; sandstone, one foot, six inches; two feet, nine inches of clay shale nine inches of coal; three inches of clay shale, wavy bedded and light gray; one foot, six inches of coal; three inches of clay shale, dark gray; one foot, eight inches of coal; two inches clay shale, soft and black; three feet, six inches of coal;
soft clay shale floor. The section as given there presents
1056 considerable coal in the aggregate, but discloses a badly
banded and practically unworkable condition from a commercial standpoint. Geologically that might be a workable coal bed, but not practically. Thence south to the point at which section No. 11 as given on defendant's exhibit No. 5 was measured; it consisted of a prospect incline driven westerly on a dip of about nineteen degrees. The section was taken about fifty feet from the mouth of the incline and about twenty feet from the face and shows as follows: sandstone roof; six inches of dirty coal; one foot, one inch of soft, clay shale, wavy bedded; one foot, two inches of coal; three inches of soft, clay shale, black; one foot, seven inches of coal; soft clay floor. The one foot, seven inch bench of coal next above the floor contains some lenses of bone and by lenses not distinct stratified or regular bands, but irregular, intercallations. I have a further note in connection with this section that some of these bands are thinner near the mouth of the mine or the mouth of this incline than they are at the point where the section was measured. In

other words, the dirt bands show an increase in thickness as they go westward in the opening.

Q. What does that indicate from a practical standpoint?

A. That merely indicates that they are thicker.

Q. And the showing in this hole indicates what?

A. The showing in this hole indicates a wholly unworkable bed of coal from a commercial standpoint. From my notes I judge that this incline was at least seventy feet deep under cover; then, the section was measured about fifty feet from the mouth of the incline and twenty feet back from the face. Now, just above to the west of this particular section, at this point a small stringer of coal outcrops; I have it noted in
1057 the following language in my notes: 'Small stringer of coal outcrop about fifty feet above and westerly from this incline and thickness appears to be about one foot, six inches and has overlying cap of thin, bedded sandstone.'

Q. Is that of any importance?

A. Of no commercial importance.

Q. Now, your next, going south.

A. The next going southerly is a point in the southeast quarter of the southwest quarter of section 8, town 19 north, range 116 west, where I measured a section which is numbered 12 on defendant's exhibit No. 5 and is as follows: nine inches of shale; seven inches of coal; one foot, seven inches of soft shale, light in color; one foot, two inches of coal; five inches of bone; three feet, three inches of coal, floor, hard shale. I was informed by Mr. Snedden that this incline was two hundred feet deep, driven in a westerly direction, of course, and the character of the bed not quite as good as the face as where the section was measured. The section was measured about seventy feet down the incline from its mouth. The course of the incline is westerly with a dip of about seventeen degrees. I should not consider this showing, with the amount of work that has been done there, as warranting any further work to disclose a workable bed of coal.

Q. That was your last section on the outcrop?

A. This is the last section on this particular outcrop at this time.

Q. Now, Mr. Hopkins, I believe you have already stated in connection with your investigation that you made certain underground examinations there? A. Yes, sir.

1058 Q. Why did you do that?

A. The disclosures of the underground work were of prime importance to my mind from the fact that they represented, really, to a certain extent prospecting, but up in the thousands and perhaps hundreds of thousands of dollars, and as being more complete prospecting than these shallow, surface inclines.

Q. Well, would the observing of such uncertainties or irregularities in the coal beds as shown by these underground workings in these open mines have any particular bearing on what might happen along the remainder of the coal horizon?

A. I should say that they are the best evidence obtainable as to what is liable to occur along that cropping.

Q. Now, what are some of the problems or underground conditions that you find in coal mining here in the West and particularly in this district, and which would interfere with the continuity of your coal vein, and its quantity and its value as a workable proposition; I mean in the way of, not economic features, particularly, but the faults and wants and things of that kind?

A. Well, there are, at least, two kinds of wants which I have met practically in actual operations. The one is caused by the inequalities in the floor of the deposit, in the shape of mounds or little, low hills or irregular swells of the original floor of the deposit. Where the elevation goes up caused by a swell and is greater than the thickness of the coal deposit at that time, that is to say, a swell ten feet high should occur and you have a coal deposit of nine feet at that particular time and place, you would have no coal deposited there over this area that was ten feet higher than the average of the surround-
1059 ing plain. I think an occurrence of that kind or a want of that kind has been to a certain extent described in this case by Mr. Griffiths, and was encountered in the Cumberland mines while I had charge of them. It was encountered in the No. 2 mine on the south side, and the outcrop immediately above that want showed a very nice thickness of coal and good, clean, workable vein. The want going westerly from the crop in that case was encountered about six hundred or seven hundred feet from the outcrop in a direct, westerly direction on the dip. The other class of wants with which I am familiar with, practically—there was one which cost me a considerable amount of money over here in the Colville district in Utah—that want there was caused by the destruction of a portion of the coal seam while it was still in a partially unformed condition, that is, not solidified and without any covering over it, before it had been blanketed with the sandstones and shales of the country. Some current or stream had run down through the coal swamp where the carbonaceous mud was lying, and absolutely washed out a channel for itself leaving the sand and gravel in the place of the coal. I drove across one of those down at Colville, a matter of about four hundred or five hundred feet on an incline of twenty-five degrees, so that I am very thoroughly familiar with that sort of a want.

Q. Was it your own operation? A. Yes, sir.

Q. How did the outcrop look there?

A. The outcrop there was very good and is even so good that it was mentioned by Clarence King in his Fortieth Parallel Surveys as being a desirable place to open a coal mine. I have noticed that recently; I did not know it at the time.

1060 Q. Was your operation profitable? A. No, sir.

Q. Before you leave it, will you describe this Cumberland want a little more, the extent of it and how it affected those mines?

A. Well, I only can give the real extent of it by repute.

Q. Well, your knowledge at the time you left there.

A. The mine foreman, Mr. Blake—well, at the time I left there we had disclosd it in two levels, that is, the levels were some three hundred or three hundred and fifty feet apart, taking a cross-section going to the dip from the outcrop of the coal bed. At that point we would go down about six hundred or seven hundred feet and encounter this want; that was between No. 2 and No. 1 south levels, as I recollect it. Then, the next level below carried to the deep two or three hundred feet further, encountered the same want. That is actual knowledge. Since then cause has practically cut off the No. 2 slope and has been encountered in No. 1 a mile and a half or two miles south of there in their workings, showing that it covered an extensive area, I should say not less than from five hundred to a thousand acres.

Q. Now, in your underground examination for the purpose of this case, Mr. Hopkins, what mines did you visit?

A. I visited the mines Nos. 2 and 4 of the Diamond Coal & Coke Company.

Q. Are those all of the open mines of that company?

A. Yes. They at one time had a temporary mine which they called No. 3, which was opened on the outcrop portion of the territory which has since been worked from the No. 1 mine.

Q. That adjoins No. 1?

A. It is between No. 1 and No. 2 mines.

1061 Q. Did you visit either of the Kemmerer mines?

A. Yes, sir, but we were unable to make an investigation of those mines. We reached the No. 2 mine first, and the general foreman was there, but he said the mine had been shut down for, I have forgotten whether he said one or two months, but it was in the months, anyway, and that the mine would be unsafe to enter without firing up the boilers and running the ventilating fans for a couple of days to clear out the gas or black damp or whatever might accumulate there, and he advised us against attempting it. He said he could not do anything himself, and he would have to see Mr. Quailey. We went over to the town of Frontier to see Mr. Quailey and found him absent, so we did not get in either of those mines.

Q. Did you visit either of the Cumberland mines on this trip? A. Not on this trip.

Q. Why not?

A. The Cumberland No. 3 mine which is the nearest mine to this land, the most northerly of the Cumberland mines, has been shut down for several months, and is not a safe mine to enter under those conditions.

Q. Now, who directed or suggested to you what parts of the mines that you did visit that you should go into?

A. There was no suggestion. We made the request of Mr. Snedden, I think, to furnish us somebody as a guide or go with us and I believe he furnished Mr. Shurick a portion of the time in our trip in No. 1, and joined us himself in the afternoon; that is my recollection of the trip in No. 1. We had access to his mine maps, and we decided where we wanted to go and we went there.

Q. And they merely guided you to the places?

1062 A. It is necessary in mines of that kind to have somebody that is conversant with the traveling ways, and it was also necessary to send a gas watchman, the person who is in charge of the ventilation of the mines—it was necessary to send them ahead and examine the portions to be visited with safety lamps and that sort of thing, to find if they were safe before we would venture in; and in that way it was necessary for us to advise to a certain extent with the superintendent, who was Mr. Snedden. I will say further that he was having some trouble with his pumps in the No. 1 mine; he has an electric outfit there and also a compressor outfit, and both of them broke down and he had to rely on the steam which he was using from the bottom of the mine, and some portions to the north that we would like to have seen were not visible on that account; we could absolutely see nothing. That condition existed on several days on account of the steam. The repairs were hard to get for the compressor and electric plant.

Q. What have you to say as to the extent and nature of your underground examination there being sufficient to determine what you were attempting to determine?

A. I consider that the investigations as made were complete enough for practical purposes. Of course, if we could have gotten into this territory where the steam was so bad we would probably have had a repetition of what we saw further up this slope on the same side to the north. The indications at the bottom of the slope and in the north side of the slope that we visited would warrant the belief that the same conditions existed.

Q. You visited No. 1 mine first, did you not?

A. Yes, sir.

1063 Q. And you have that all in order in your note book?

A. 2nd north level, No. 1, yes, sir.

Q. Now, will you give us your observations upon this trip to No. 1 mine, and when you get to the sections which have been prepared from your observations there, give them and your results and conclusions which you draw from those section.

A. Well, we went into this mine No. 1 of the Diamond Coal & Coke Company on Tuesday, April 7th, and Mr. A. T. Shurick accompanied Mr. Forrester, Mr. Talmage and myself. We walked down the main slope to the 2nd level on the north side of the mine, and at the overcast took the following section of the coal bed—

Q. Now, this section is the same as No. 1 on defendant's exhibit No. 6, is it not?

A. Yes, sir. I will say further that this one is duplicated; it is on two papers; it is as follows: shale roof; six feet, eleven inches of coal; two and a half inches of bony; two and a half of coal; two inches of bony; one foot, three and a half inches of coal; three inches of bony; eight inches of coal; three inches of bony; two feet, four inches of coal and the floor not exposed. The coal is of workable character at this point, disclosing one bench alone of six feet, eleven inches. Thence proceeding northerly on this 2nd north level of No. 1 mine we took a dip reading at room 17, showing the dip here to be thirteen degrees. Thence we went north to the back entry cross-cut between rooms 19 and 20, and took the following section which is No. 2 on exhibit 6 for the defendant: shale roof; six inches of shaley, worthless coal; one foot, seven inches of coal; occasional bony lenses; five inches of bony and of arenaceous shale; two feet, seven inches of coal; two

1064 and a half inches of bony; one foot, eight inches of coal; three and a half inches of sandy shale; three and a half inches of coal; three inches of shaley bone; one foot, eleven inches of coal; six and a half inches of bony; four feet, three inches of coal and the floor. I have a note at this point saying that I note the heaving of the clay floor between the two points on the entry, showing that the pillars along the same—

Q. What do you mean by the heaving of the floor; what causes it?

A. Well, the heaving of the floor is an improper expression, but it is about the only way of describing it. It is the overburden driving the pillars of the coal that are left down in to a soft floor, which gives the floor the effect of moving, a good deal like sticking a pole in some mud. The coal pillars

being the sticks of wood, and the mud representing the floor, in sinking the pillar down into the floor, it would give it the effect of the floor heaving up.

Q. How does it interfere with mining, that kind of thing?

A. Well, it interferes seriously with the haulage roads and that sort of thing, inasmuch as you must keep grading them, and if the coal is not thick you must haul away this material that has apparently moved and you keep taking it out and it will keep coming; you take it out once and more comes in the place of it in a very short time; it keeps you continually working on your track and it increases the haulage expense very materially and at the same time gives very poor roads for hauling. The section at this point as just given shows a marked increase in the dirt bands in the coal bed and the coal is gradually and very nearly approaching an unworkable stage on account of the amount of the dirt bands.

1065 Q. Can you give the distance north and south between these two points, No. 1 and No. 2 were taken; of course, it would be the distance in which this increase took place.

A. I will have to get hold of my map here.

Q. There is no map of No. 1.

A. There is no way of taking absolutely these measurments in these mines, for the reason that the rooms and the pillars are not, as a rule, of uniform width or thickness. A large portion of the work here as far as I was able to observe has been of a character in which the rooms would be worked in blocks of from two to four, with, say, a twenty foot room on about a fifty foot center, and then a block of solid foot would be left for, say, one hundred feet or a matter of that kind, and then another little series of three or four rooms opened, fifty foot centers, then another big pillar of coal left, so that it is pretty hard to judge from the number of the rooms in these mines as to the distance from the slope. We kept our notes, unfortunately, according to the numbers of the rooms, because they were all numbered with chalk and we could see every number, and that is about all we could do and where we did not actually know the distance it would be difficult, except to describe it by the room number.

Q. Well, take your next section; your next observation of this 2nd north level of No. 1; it is not important, anyway.

A. We went then north of the main entry to the mouth of a raise crossent to room 39 where we took section No. 3 on defendant's exhibit No. 6, which is as follows: shale roof: two feet, two inches of coal, shaley near the top; seven inches of bony, aranecoues; four feet of coal; one foot, two inches of shale; one foot, nine inches of coal; one foot of shale; nine

inches of coal, very soft; three feet, two inches of coal
1066 shaley and somewhat soft, the bottom twelve inches very soft; shale floor. At this point the entry—the space in which the entry is driven is the upper benches, using the floor or bottom of the four foot bench of coal as the floor of the entry.

Q. They are not trying to mine the coal lying below that four foot streak or bench, then?

A. No; in fact, an attempt even to carry narrow work in that lower bench, it contained so much foreign matter for the amount of coal to be recovered, that it was just left there.

Q. You went still further north in this second cross level, did you?

A. Yes, and I want to note here that the dip at this point is seventeen degrees in a westerly direction. Thence we went northerly along the entry, which turning sharply to the west leaves the bottom vein below, the one foot, two of shale, using this shale as the floor. After the main entry joins the back entry, they are driven northerly to room 43, and the face of room 43 shows two feet, eight inches of hard shale with the same material for the roof. Thence on to the face of the entry sixty feet beyond room 51, travelling over caves caused by the clod of clay shale coming in, which is above the coal. The entry is about nine feet wide. The following section was taken at the face of the 2nd north entry of this No. 1 mine of the Diamond Coal & Coke Company, marked No. 4 on defendant's exhibit No. 6; it was taken at the face of the entry sixty feet north of room 51. It shows two feet, one of shale, irregular laminations, crumbling in character which is easy to air slack; one foot, eight inches of coal; four inches of shaley bone; three feet, eight inches of coal; shaley floor, partly exposed, nine inches. Now, the two benches of coal here, the
1067 one foot, eight and three foot, eight, are soft and shaley and not of merchantable character. That refers to the quality of the coal.

Q. Now, what, if anything, is there showing on sections 2 and 3 on this exhibit 6 which leads you to expect this condition that you found in section 4?

A. Well, there is hardly anything that would lead me to expect that, except that the length of that entry may be considered as a prospect, and as you proceed in a northerly direction these slate and shale bands keep on increasing in character and in thickness and in number and the coal decreases in thickness and in quality as well.

Q. Had the face of that entry been carried north of the rooms?

A. Yes, it had; just how far I dont find in my notes, but I recollect distinctly that it was quite a long way, and I noted the width of the entry particularly because of the caved character of this following or clod which was over the entry or forms the roof of the entry.

Q. It had been prospected beyond the point where they could make or turn rooms?

A. Oh, yes; it must be several hundred feet. I know I recollect climbing over this cave, and this cave and clod had half filled this nine foot entry driven into the south. I should say it must be four hundred or five hundred feet.

Q. In the face where this section 4 was taken would the showing justify any further prospecting or any further mining in that direction?

A. Well, not to start out; taken in conjunction with the outcrop showings further to the north just after leaving Jenkins Hollow and going north toward Quailey's No. 3 mine
1068 or the Kemmerer No. 3 mine—taking that into consideration I do not think there would be much encouragement for anybody to prosecute any prospects any further in that direction. I certainly should not do it personally.

Q. The underground mining there, then, bears out the showing on the surface, the horizon showing?

A. This shows that going to the north, these sections as shown on exhibit 6, the showing is that the coal decreases from a workable bed there near the slope and partially in on that entry to an unworkable bed at the face, probably half a mile away, I should say, at least in a northerly direction. Then the varying outcrop outside, you see there the fact exhibited that there is no workable seam on the horizon at that point, and this point is headed for that point, and consequently, putting the two together, my guess would be that you had better quit prospecting here because you are driving into territory where we practically know there is nothing.

Q. Now, going down the main slope of No. 1 mine, you have already given a section taken there at what is known as the 2nd north return airway; you gave another description of it?

A. Yes, it is the overcast of the north return airway, that is correct.

Q. That is section No. 1 on exhibit No. 6. Now, on exhibit No. 7, section No. 1 is this same section going down the main slope, isn't it? A. Yes, it is.

Q. Did you go on down that slope and check other sections?

A. Yes, we went on down the slope; after coming back out of the 2nd north entry we went down the slope to a point opposite the 7th south back entry where a section of the coal
1069 bed was taken and it is given as No. 2 on exhibit 7, and the section was as follows: shale roof; three feet, four

inches of shaley, dirty coal; one foot, two inches of coal; three inches of arenaceous shale; three feet of coal; a tall band of bony which I find in my notes here I have not reported the thickness of; then, one foot, two inches of coal; eight inches of bone, shaley; one foot, ten inches of coal; three inches of bony; four feet, six inches of coal, quite dirty, near the middle and a shale floor.

Q. Now, what was the showing of coal on that section?

A. Well, that showing is approaching the character of the showing met by going north in this No. 2 north entry. Instead of going in at right angles, you are going westerly in this case, and in the other case, northerly.

Q. Going down on the dip you get somewhat the same showing as you are getting going north on the other?

A. Yes, exactly.

Q. The first section going down this slope from the one that you gave, the 2nd north level is about how far down, approximately?

A. I should say fifteen hundred feet; about that.

Q. How much further down the slope is this 7th back entry where you took this section No. 2.

A. I must have misunderstood your previous question; I thought you asked me the distance down the slope between this No. 2 north entry and the No. 7.

Q. How far down is the No. 2 north entry; that is what I asked you?

A. I should say four hundred feet or something like that.

Q. Then, it is thirteen hundred feet to the 7th south
1070 back entry, to the second section? A. Yes, sir.

Q. Now, what is the showing in the vein there; would you call it of any considerable importance?

A. Why, the vein is approaching the banded condition which would soon make it unworkable if it continued to increase in quantity and thickness. You have got one, two, three, four, five—you have five, distinct, dirt bands in that section at that point and of pretty fair size.

Q. Now, going on down the entry did you take another section showing the condition of the vein at that point?

A. We went from there down the slope, and the old slope—that is evidently approaching the point in between where the new slope driven off in a southwesterly direction breaks off from the old, main slope.

Q. What happened to the main slope?

A. Well, I think you will be informed what happened to it in this next section.

Q. Where was this next section, the 3rd section on defendant's exhibit No. 7 taken, and how far on the 7th south, back entry from where you took No. 2?

A. It is on down on that old slope to the pump station at the 10th level. The section at the pump almost opposite the 10th level reads as follows; it is the section marked No. 3 on defendant's exhibit No. 7.

Q. About how far from the last section you gave, the 7th entry?

A. That would be about a thousand feet, probably. Shale roof; six inches of shaley coal; three inches of bony; three inches of dirty coal; four feet, seven inches of coal, granular and
1071 fragmentary; it is practically composed of lenses and little fragments of round bony scattered all through the coal.

Q. Then, that is what you would call bastard coal?

A. Yes, that has here been called bastard coal by the previous witness. One foot of shale, argillaceous; nine inches of bone coal; two feet of coal; four inches of bone; ten inches of shale; five feet, four inches of coal; nine inches of shale for the floor. Now, there are two benches of coal in that section as read, either one of which might possibly be considered workable coal, but under the prevailing conditions in this mine they constitute unworkable benches of coal from the fact of their surroundings and the numerous clay and bony bands and shale bands which intervene between the floor and the roof.

Q. Do these three sections indicate a gradual increase of these bands as you go down the slope?

A. Yes, sir, particularly in the number of the bands, and of course, the only bench of coal here that is of value, which would be of commercial value in operating, is that bottom bench of five feet, four inches of coal, and that, with its surroundings, is a hardly workable bed of coal under the conditions.

Q. You mean the roof and the floor?

A. Yes. Now, this ten inch shale which is above that five feet, four inches of coal, it is composed of a light colored band which generally weathers very badly and air slacks; in other words, makes a soft mud that you can pinch up in your hand, a regular white mud, and that would be the immediate roof of this five feet, four inches of coal.

Q. Is that the end of the main slope at that point or close to it?

A. That is very close to it; you have just the same
1072 distance, probably thirty or forty feet of the old, main slope, which was abandoned because of the character as shown here in this section.

Q. Was it driven any considerable distance for prospecting purposes without rooms off from it?

A. Well, of course, the rooms do not break off from the slope, and unfortunately, as I say, on account of the steam, we were unable to go into the first entry leading to the north

from this point. All of the entries on that side, however, have been driven into an unworkable condition apparently, because they are all abandoned and all caved, and the abandonment has been over a long period of time. It has nothing whatever to do with the present conditions or present desires of the company; they were abandoned honestly because they couldn't work them.

Q. Are those all the sections you took along the slope or north of it in No. 1 on this entry?

A. Yes. I want to note, however, that we went from this pump station just opposite the 10th south level on the old slope, southerly in the 10th south level to the present caved face of room 39. Now, roughly, I should say that was half a mile, at least, two thousand feet, and may be a little more. The entry was driven about four thousand feet or a matter of that kind, according to their mine maps, but the southerly half of this portion that was driven at one time and in which they projected work—I understand the coal was good in there; it was good as far as I saw it—the inside two thousand feet of the level is absolutely caved, solid, and they are reopening it; miners are there timbering and picking up the big roof caves and the old entry was absolutely closed tight, just the
1073 same as if there never had been an entry there, and in place of the coal it would be this roof slate.

Q. From the excessive weight of the old workings?

A. Just now when they drive an entry originally four thousand feet or over, whatever it is they drove that entry, and took out perhaps thirty per cent of the coal, they left large pillars there and worked small rooms they have only worked these rooms in blocks of two or three or four, then left great, big barrier pillars, pillars over a hundred feet or more of solid ground, then broke off another little series of rooms of three or four, and then left another hundred feet solid without any rooms in it. That working probably did not take but over one-third of the coal along that level. Now, then, they are driving an entry again to recover what they can of that sixty-six per cent that they left; in other words, there is a condition created of that roof which requires them practically to drive that entry twice in order to get that coal.

Q. Is it expensive work, that re-driving?

A. Well, I should say it is; that class of work would cost probably three or four times what the original cost of driving the entry was.

Q. Upon what entry down the slope, what level is that?

A. The 10th south.

Q. And would be about what distance down the slope?

A. Well, roughly, I should think that would be some thirty-three hundred or thirty-four hundred feet, a matter of that kind.

Q. And what is the dip of that locality; have you noted it?
A. I don't see any note of the dip just at that point.
Q. Look at your section.
1074 A. The dip at the mouth of that on the slope, at the mouth of the 10th south level, at the junction of the 10th level and the slope, is fourteen degrees—no, that is not the true dip; the true dip is somewhat greater than that. You see the slope was not driven, the No. 1 slope was not driven accurately on the true dip; it is off the line, in other words.

Whereupon further hearing was adjourned until 7-30 P. M.

1075 7-30 P. M.

Direct Examination of Mr. Hopkins Resumed

By Mr. Evans:

Q. Mr. Hopkins, when we adjourned you were just talking about the caving and the conditions of the 10th entry south from the No. 1 slope. Did you take any other sections in No. 1 mine?

A. No, sir—well it is possible that I may have missed one of the slope sections, but its materiality would not amount to anything. The vein was workable at the point that section was taken; it was at a point further toward the surface.

Q. Did you make any very extended examination of the south faces of all of the entries in No. 1 mine?

A. We did not.

Q. Why not?

A. All the faces were, in fact, most all of those levels had been worked out to the boundary pillars to the south between No. 2 mine and No. 1 mine; in other words, it had reached the territory to which it was entitled in the division of this area of workable coal here; it had reached the boundaries of its proportion of that land and those entries had all been worked ahead to that boundary pillar, and then I understand that the tracks had been left in most of them. You see, in that advancing work, as I said before, the recovery of the real coal in the ground was only about one-third of the total quantity, and those tracks had been left there for the purpose of using them again as the mine was being abandoned and the attempt made to recover as much of this pillar coal
1076 that had been left as possible. The reason those pillars were not withdrawn at once, of course, on a pitching seam of that kind or a bed at the angle of inclination that that stands, when they work a large, unsupported area the cover or overburden is bound to spring, owing to the dip; it is just like sliding down hill on a piece of ice, and the weight will spring and break the roof down if you take out those pillars original-

ly, or work out a larger percentage of that coal in the original work; you would be unable to work a mine to the depth that has been done in this case under those conditions. I consider in a general way, in speaking that, that the work which has been done at this Diamondville No. 1 mine has been essentially workmanlike, and shows a great deal of forethought and a desire to work as much coal as possible in a slope under these conditions.

Q. Now, what are your conculsions there from the showing in No. 1 mine from the examinatjon that you made?

A. There is another factor which enters into my conclusions regarding that.

Q. You may state it.

A. That is a drill hole which has been placed just north—the location of this drill hole is such that a projection of the 6th north level of the mine for a distance of fifteen hundred feet or something like that would reach the territory in which this diamond drill hole is found. Now, if it is proper in connection with my answer, I will read into the record the section of that drill hole No. 1.

Q. Have you got it? A. Yes, sir.

Q. All right; read it from your notes then.

A. Giving its location. Diamond drill hole No. 1 as
1077 shown on complainant's exhibit No. 310, offered in evidence, being one of the four holes which were sunk by the Diamond Coal & Coke Company and of which the record was handed to Mr. Veatch and used by him in court, is located in the northeast quarter of the northwest quarter of section 24, township 21 north, range 116 west. From the outcrop westerly this hole is eighteen hundred and seventy-five feet, and the collar of the hole is two hundred and three feet below the outcrop. The dip of the strata from the outcrop westerly is fourteen degrees. The coal horizon in the hole should occur from computation at two hundred and sixty-four feet from the collar of the hole and the coal was actually found in the hole at two hundred and sixty-two to two hundred and sixty-nine feet below the collar; that is, by coal, I mean the coal that occupied the horizon of the Kemmerer-Cumberland coal bed. I have not at hand what that section is, or what the size of that coal was.

Q. From the drill hole?

A. Yes. I now have the data which I did not have a few moments ago, and will read it into the record. At two hundred and sixty-two feet from the collar, a bench of coal is noted in this section of three feet, six inches; then, one foot, six inches of slate, then one foot of sand rock, then one foot of coal, with sandstone underlying it as the floor. Now, while I am on this diamond drill hole and before I go further, I wish to say that the best information that I can get regarding these drill

holes is that it was about an inch and a half in diameter, and this record where it says three feet, six inches of coal does not mean actually three feet, six inches of coal, but it means an interval from which black material, supposedly coal, was procured. No cores were procured from any of these holes;
1078 the size of the holes would preclude the possibility of a core at that depth.

Q. You may assume that it did not exceed an inch and a half. The diameter of the drill was probably an inch and a quarter.

A. Well, I should judge that an inch and a quarter, of course, would be smaller than the hole, and I should assume from what I know of drilling and that sort of thing, that these measurements here are only approximate at best, and merely represent an interval from which was secured material supposedly coal; it might have been bone or it might have been bastard coal or it might have been almost anything else but coal, but the word coal is used here as the term for anything that occurs in the neighborhood of that coal seam, and that assumption seems to have been followed in a general way by almost everybody in connection with one side of this case.

Q. Before we leave that, with a diamond drill not to exceed an inch and a half in diameter, could you get any fair idea of the quality or workable value of the coal?

A. It is absolutely impossible to do so.

Q. And what have you to say as to that hole No. 1, while we are on it, showing its commercial quantity of coal, assuming that the quality is good?

A. Why, it is absolutely unworkable, and there is another feature of that that I have overlooked, possibly. Now, I take it that these vertical sections are on the line of the hole, which meets the angle of the dips at an angle, not a right angle, and consequently they are not measurements even as they appear here, which measures square across from floor to roof at right angles to the floor and roof; measurements taken at right angles to the coal bed would materially shorten these measure-
1079 ments as given here on these sections.

Q. Proceed with your conclusions about No. 1.

A. The conclusions reached now from my investigations in No. 1 mine, taking into consideration the good and workable appearance of the outcrop in the beginning and the shown unworkable condition of the face No. 2 north entry and the results obtained by a diamond drill hole several hundred feet deep and one-third of a mile north of the 6th north entry, I should say that the north side of this mine was at its absolute limit; that the slope, the old, main slope which is abandoned, was also at its limit, and that the south side of the mines, owing to their having worked what territory was valuable there, has little but

the pillar coal left there, and that this mine has practically reached the limits to which it can be worked at the present time; that feature work of this mine, I mean by that, will be a withdrawal from the present faces, and in the nature of recovery what percentage is possible from this pillar coal which has been left in opening the mine.

Q. Now, you went to No. 2 next, did you not, underground?

A. Yes, sir.

Q. Will you get your notes upon that?

A. Yes, sir. I also desire to ask, before going to No. 2 mine, that I am influenced somewhat in my conclusions regarding No. 1 to the north from the appearance of the coal bed north of the workings, and toward the Kemmerer No. 3 mine.

Q. Mr. Hopkins, in your examination of No. 2 mine of the Diamond Company, you used or had a print, did you not, of the workings; a plan map similar to defendant's exhibit No. 8 which is before you? A. Yes, sir.

1080 Q. And upon that you marked somewhat your course through the mine and your points where your sections were taken? A. Yes, sir.

Q. Where did you go first in No. 2 mine?

A. We took the trip at the mouth of the mine and rode to the 4th south level, and we walked in along the level somewhere about two hundred feet and took the following section which is marked—

Q. A section two hundred feet south of the main slope?

A. Yes, sir.

Q. Your section is identical with the section marked A. on defendant's exhibit No. 9?

A. Yes, sir. The following is the section: clay shale, cloddy, three feet; three feet, four inches of coal; two inches of bone; seven inches of coal; one and a half inches of bone; six inches of coal; three inches of bone; one foot, eleven inches of coal; one and a half inches of bone; three feet, nine inches of coal; hard, shale floor; dip, seventeen degrees westerly. Thence we went south on the entry to room No. 11, where the following section was taken, marked B. on exhibit 9: two feet, one of shale at the face and clod at the roof; coal, two feet, six; one and a half inches of bony; one foot, one, of coal; one and a half inches of bony; two feet, seven of coal; two inches of bony; four feet, seven inches of coal hard, shale floor. Thence south on the 4th entry to room 25 and took the following section: argillaceous mud, two feet; black shale, soft, two feet; coal, seven inches, soft and badly crushed; bony, four inches; two feet, six inches of coal, crushed; three inches of bituminous shale; two feet, six inches of coal, granular; five inches of bony;

1081 three feet of coal; the floor is softish shale. That was section C. on exhibit 9. Thence south on the entry to a

point one hundred and twenty feet south of room No. 9, where the dip was eighteen degrees westerly, where the following section, markd D., on exhibit 9 was taken: shale, one foot, six inches; coal, two feet, six inches; shale, six inches; coal, two feet, seven inches; shale floor. I have a note here which say this entry, No. 4 south entry of No. 2 mine, is driven nine to ten feet wide and is generally caved, caused by a clod or following of the varying thickness of one to four feet; that was in the line of travel. Thence we went south on No. 4 entry to a point fifty feet north of the last slant, and the following section, marked E., on exhibit 9 was taken: shale, one foot, three inches; coal, two feet, five inches; shale, two inches; bone, unstratified and granular, eleven inches; shale under that, which I have not incorporated in my notes here. We will see if it is material from the section here.

Q. Three inches it says.

A. It is shown on section E. as three inches, but it is not particularly material. Coal, three feet, eight inches, soft and unworkable; shale floor.

Q. That section corresponds with section E. on exhibit 9, does it not, the section which you have just given?

A. Yes, I so have it in my record. Now, I find a note here regarding this unstratified, granular bony of eleven inches stated in the section, saying that it increases in ten feet to the south from the point where this section was taken to two feet in thickness, that is, from eleven inches to two feet, and at two hundred feet south to a light colored, arenaceous shale about three feet thick and I noted as an illustration of
1082 the contemporaneous deposit of different material on the same horizon; by that I mean the sorting power of water over material, and the methods of their deposition on the same plane. Thence south along the entry to the face of the entry, where the following section was taken, marked F. on exhibit 9. I would like at this point to give the distance of that entry to the south. The face of that entry at the point that section F. was taken, is essentially half a mile south from the slope.

Q. Now, what do those workings show?

A. Let me get this in.

Q. You didn't read that; that is true; go ahead.

A. The section is as follows, section F.: shale roof, cloddy; one foot, nine inches of coal; two inches of bony; eleven inches of coal; three inches of black shale, soft; two feet of shale, arenaceous, light colored; three inches of bony; one foot, eight inches of coal; four inches of shale; two feet, nine inches of coal; shale floor. This is the last section taken in this No. 4 south entry of No. 2 mine, Diamond Coal & Coke

Company. The sections taken illustrate very aptly the decadence of the coal beds to the south of No. 2 slope at the face and for several sections behind the face, like F. and E. and D., the coal bed is not of commercial value from any operating sense and a coal bed of that character could not properly be termed coal land, in my estimation.

Q. I note that the plan map, exhibit 8, shows this entire entry some distance south of any rooms which are shown there?

A. It is.

Q. How do you account for that?

A. Well, I have just been relating that the coal is valueless from an operating standpoint and you can only account for that entry being there on the hypothesis that the work
1083 was done purely as a prospecting proposition.

Q. Now, where next did you go and take sections in No. 2?

A. From the face of No. 4 south entry we retraced our steps on No. 4 entry to the last cross-cut, and down the same to No. 4 back entry, and then down to room 36, which had broken through to the back entry.

Q. From what entry?

A. Room 36 is brought from the 5th entry, but the top of the room, coming up on the pitch, had broken into the floor of the upper entry.

Q. But that was made from the 5th entry?

A. Yes, sir; the room was driven up from the 5th. We walked down that to the 5th entry and took the following sections at the face of the 5th south entry, which is marked G. on exhibit 10: shale roof, two inches exposed; ten inches of coal; two inches of bony; one foot, three inches of coal; three inches of shale, soft and light colored; two feet, one inch of sandstone, argillaceous; seven inches of shale, bituminous; two feet, four inches of coal; five inches of shale, soft and black; two feet, seven inches of coal; shale floor. The dip of the measures at this point was eighteen degrees westerly. I have a note here of this room 36, which is the inner room there from the 5th south entry, and is on the dividing line between the sandy shale and the bituminous shale.

Q. Did you make any sections to show that?

A. Showing one kind on the north side of the room and the other on the south side of the room, the room being ten or fifteen or twenty feet wide as the case may be; twenty, I think.

Q. Do these two sections, in addition to G. on defendant's exhibit 10, show this change?

1084 A. They were sections which were taken near the mouth of the room on the 5th south or in the room, off the 5th

south entry a few feet, one on the north side of the room and the other on the south side. I have a note here also regarding the amount of dirt and caved material piled along this room through which we walked, and it was heaped up on the sides and even in the middle of the room it was difficult to get around.

Q. At the face of that entry, had it reached the limits of the workable ground, the workable coal there?

A. The section as given here in G., exhibit 10, is unworkable. This note regarding that large amount of dirt speaks of that large amount of dirt both along the room 36 on both sides, nearly to the roof, that is, the present roof, and in entry No. 5 it is partially filled with the caved roof clod. Do you care to have those sections? I guess they are not material.

Q. Well, you may read them; the sections of room 36, you mean?

A. Yes, sir. On the north side, below the upper coal there is a dark colored shale eleven inches and quite a black shale for one foot, two inches, then coal. On the south side, below the upper coal is two inches of shale and ten inches of argillaceous sandstone and five inches of black shale; in other words, what has been a black shale on one side of the room has in that distance across that room changed to an argillaceous sandstone. That is another illustration of that sorting power of water that I was speaking of.

Q. What does it mean in the mine?

A. Well, it would be inferred from the sequence of that deposit that as you went south you were getting into
1085 heavier material, that the source of that material was to the south, and that the lighter particles had floated the furthest and the heavier deposited nearer the source, so that one would assume from that indication that the source of this band or stratum or material from which it was made was to the south. Thence we proceeded down the last crosscut in entry No. 5, south, opposite room 36 to the back entry of the 5th south and thence north on the back entry to the break through of room 29, which would be the top of room 29 of the 6th south entry. Thence down that room 29 to the 6th south entry and to a point sixty feet beyond room 30 on the 6th south entry, where the following section was taken—

Q. Sixty feet south of room 30, you mean?

A. Yes, sixty feet south; it is marked X. on exhibit 11. The section is as follows: sandstone, no measurement; shale, three inches; coal, two feet, six inches; this coal was badly crushed; shale, three inches; sandstone, argillaceous, one foot, eight inches; black shale, six inches; sandstone, nine inches; soft shale, one inch; the bottom coal, indefinite. By that

indefinite I mean that there was a little coal exposed, but the floor of the seam was not exposed and it was badly caved so that it was impossible to get to the bottom of it.

Q. What was your opinion as to whether it was workable thickness or could have been there, on the bottom?

A. Well, I should not say it was workable thickness, because back in the entry a little further we could see the floor.

Q. What is indicated in that 6th south entry, then, at the face as to the limits of the coal?

A. The coal was unworkable. Thence we retraced our steps over the course taken at the mouth of No. 4 south entry
1086 and down the slope to the 8th south entry, noting at the 7th south and nearly to the 8th south an abnormal thickness of unstratified clay, cloddy in character, about twelve feet, six, constituting the roof. At No. 8 entry the roof had again assumed a normal condition. Thence we traveled south over the 8th south entry to room 12 where we took the following sections—

Q. Didn't you have one of room No. 1 on the 8th south, or did you take that afterwards?

A. Yes, we went up there and took it coming back; it is differently arranged here.

Q. The section at room No. 12 you were giving now?

A. I think it so reads in the record.

Q. That corresponds, then, with J., upon exhibit 12?

A. Yes, I so stated, I think. The section is: shale roof, six inches exposed; coal, one foot, nine inches; this coal is soft and dirty and not commercial; six inches of shale, black and soft; coal, two feet, six inches; bony, two and a half inches; coal, three feet, three inches; shale floor. The bottom, three feet, three inches of coal is—well my note says it is full of thin lenses of bone; the word full is hardly proper there, but it means that there is a great deal of coal in that bench. Thence we proceeded south along No. 8 south entry to room 15, where the following section, marked K., on exhibit 12 was taken: shale roof; two feet, three inches of coal; bony, one foot; coal, two feet, three inches; bony, seven inches; coal two feet, five inches; shale floor. Thence we proceeded south along the 8th south entry to room 20 where the following section, marked L. on exhibit 12, was taken: the dip of the strata was eighteen degrees: shale roof, six inches; coal, somewhat crushed, two feet, five inches; bone, three inch-
1087 es; sandstone fasil and the top portion indurated, drab and yellow in color, one foot, nine inches; dark, clay shale, two inches; bony, four inches; coal, soft and worthless, two feet, nine inches; bone, five inches; coal, indefinite, the floor not exposed. My recollection is that that was [parroximately] on the floor, but I show it that it was not on the floor.

Q. Section L. shows two feet exposed?

A. Yes; that shows no floor. We proceeded thence along the 8th south entry to the face, which is eighteen hundred and twenty feet from the main slope, and took the following section which is lettered M. on exhibit 12. The section taken, shows at the roof some coal, which was the top bench of the last section given; then one foot, eight inches of argillaceous sandstone of a banded structure; seven inches of shale, black, two feet, five inches of coal; nine inches of shale, black; sandstone, gray and indurated, following by clay saddleback on the upper side of the entry, making a total of three feet, four inches. The above saddleback takes the place of the lower bench of coal and is of a wavy, modified, concretionary structure.

Q. What is the showing upon this section M as to the workable condition of the vein there?

A. It is absolutely unworkable.

Q. And that is the face of this 8th south entry going south?

A. Yes, sir.

Q. Is there anything upon these sections that would show in the 8th south entry there that you would call workable, any of these sections?

A. Well, they are very close to the line; I should be inclined to say that the last three, at least, which would [—] K., L. and M., are not commercial propositions, that is, they would not be operated if you had to mine nothing else but them.

1088 Q. Is there a gradual decrease in the condition of the vein there as you go south?

A. There is a decrease, apparently, in the quantity of the coal and an increase in the foreign matter injected into the bed.

Q. You may proceed with your work in this 8th south entry.

A. Returning to the slope, a section was taken at room 1 on the 8th south entry, and it is marked H. on exhibit 12; the following was the section: six inches of shale for roof; two feet, three inches of coal; four inches of shale, soft and black; two feet, two inches of coal; two inches of shale, hard and black; two feet, nine inches of coal; shale floor. That is the section of room 1 on this entry near the slope. Now, it is worthy of note that while it has two, distinct bands of dirt in it, one of four inches and the other of two inches, it gives a united section of coal of something over seven feet, and that is fairly workable. It is not what one would call a good bed of coal, but it is pretty fair, that is, at room 1 on the 8th south entry.

Q. Now, have you sections on the 9th, the next entry down the slope in No. 2?

A. We then proceeded down the slope to the 9th south entry, and took a section at room 5, which is marked O. on exhibit 13.

The following is the section: shale, one foot, seven inches; bony, three inches; shale, black and soft, three inches; crushed and worthless coal, one foot, eight inches; soft shale, two inches; coal, cross-bedded, eight inches; bone, three inches; coal, two feet, five inches; shale floor. We proceeded, then, to the face of the 9th south entry, thirteen hundred and sixty
1089 feet from the slope, where the following section was taken, marked P. on exhibit 13: shale roof; two feet, four inches of coal; two inches of shale, soft; three feet of sandstone, fasil and slightly argillaceous; one foot of bone coal, granular and unstratified; three feet, eight inches of coal; shale floor.

Q. That was taken at the face of the 9th south entry?

A. I think I so stated; face of 9th south entry, thirteen hundred and sixty feet from the slope.

Q. What does that show as to the condition there going south?

A. Well, it is absolutely unworkable as it stands. You see you have got a three foot, eight inch bench of coal separated from another small two feet, four inch bench at the bottom by over four feet of foreign matter.

Q. Your next section on this 9th south entry?

A. Returning we took a section at room No. 1 on the 9th south entry, which is marked N. on exhibit 13, and is as follows: shale roof; two feet, six inches of coal; two inches of bony, two feet, eleven inches of coal, soft and unworkable; five inches of bone; seven inches of soft clay; two feet, nine inches of coal and a small band of bone at the bottom and a shaley floor.

Q. Is that workable?

A. Well, it is hardly workable; it would be very difficult. You see there are four bands of bone and shale occurring back and forwards. It is pretty close to the line. I should incline to the belief that it was unworkable; in other words, if you were opening a mine, if you had this on an outcrop where you were intending to open a mine and you drove a ways in this and it didn't improve, you certainly would not open a mine at
1090 that point.

Q. Now, then, this regular decrease in quality and width of the workable coal as you go south on this 9th south entry, does this regular decrease keep up?

A. It does, yes, sir; it certainly does.

Q. The plan map, I see, shows the entry carried beyond any rooms?

A. Well, that is purely in the light of prospecting; all of those projected entries there are beyond the limit where one would say coal could be operated at a profit.

Q. I believe those are all the sections you took on the south entries of No. 2? A. Yes, sir.

Q. Did you take any on the north?

A. We took one on the slope and another at the face of the 11th north entry. The section on the slope was taken at the 11th north entry, and is marked Q. on exhibit 14, and reads as follows: shale, three feet bone; coal, one inch; coal, two feet, four inches; clay shale, two feet, three inches; coal, two feet, four inches; bone parting, two inches; coal, three feet. Thence we walked into the face of the 11th north entry which is five hundred and twenty-five feet north of the main slope and the following section was measured, marked R. on exhibit 14: smooth shale roof with a good parting; then coal, two feet, eight inches; sandstone, argillaceous and light drab in color, two feet, soft, black shale, five inches; coal, four feet; bone, three inches; shale floor. The dip of the measures at this point was eighteen degrees in a westerly direction.

Q. Do you recollect observing whether there were any
1091 rooms run off from this entry?

A. There had been none, and it was in solid, and it is notable there that the bottom bench was reduced to four feet of coal; the upper bench being separated from it by two and a half feet of foreign matter, sandstone and shale. The 11th north entry is—I did not check this measurement, but I have marked here as forty-five hundred feet to the surface. After measuring it I see that that is correct. After taking that section R. on exhibit 14 we walked back to the slope and took the trip to the surface, and returned to Diamondville. I find here following that immediately a summary of what is observed there. That will come later when you ask me about it.

Q. Didn't you take some more sections on the north side of No. 2? A. No, sir—well, now, I say no—let me see.

Q. No, that is right.

A. I think not; I am satisfied not.

Q. Now, you have told about the south faces. You think that each of these entries have come to the limit of the coal?

A. Yes, sir.

Q. What is the showing of the condition of the coal as you go down?

A. Well, the showing in the face of the 11th north entry, is not of workable size, and that entry is apparently being driven ahead with the hopes that it may improve, and there are no rooms broken off there; it would appear that it is purely prospecting. Now, while we are on that matter, the north side of the mine has been shown generally to be pretty fair, and the entries have been driven out here to the boundary pillars between it and No. 1 mine to the north, and the productive
1092 part of the mine has been the area as shown on the mine map here, [form] the mouth of the slope down, and on the north side, and of course there has been as shown here,

some work done and some coal extracted on the south side, but it must have been of very inferior quality and character.

Q. What do you say as to the productiveness?

A. The sections as shown generally warrant the belief that that portion of the mine would not have been worked at all if it had not been in connection with the [netter] area to the north, and probably the good area in here to the northern part of the mine, between there and the boundary pillars between it and No. 1 has had to maintain and furnish the funds to do this prospecting work as shown here on this map to the south.

Q. If the operators' area had been confined to that on the south, in your opinion, it could not have been worked at all?

A. If you had moved this slope of this mine half a mile to the south there would be no No. 2 mine, that is, unless you had driven back through this poor territory into the good.

Q. Are there any further conclusions from your examination of the No. 2 mine?

A. Well, the only conclusion I can reach is, as I have just related that the faces to the south here as shown are not such as a mine will be operated on or could be operated on profitably, and the same condition seems to be moving across in a northwesterly line in this case or southwesterly, according to the prospecting that has been done here.

Q. Your next visit was to No. 4 I believe?

A. Yes, sir.

Q. There is no No. 3 mine, is there?

A. There is not at the present time; there was a small
1093 No. 3 mine opened on the territory that naturally belonged to No. 1 mine; it was opened between No. 1 mine and No. 2 mines, and on a small piece of the outcrop coal there that was above the water level; the outcrop there raised back a little from the river and reached what must have been a drift opening on that piece of coal there right above the water level. The coal at that point has been exhausted through No. 1 mine.

Q. Now, Mr. Hopkins, you have had a plan map, haven't you, similar to defendant's exhibit No. 15, on which you noted by crosses the places where you took your sections in that mine?

A. Yes, we had that map of the mine with us.

Q. Now, where did you go first in No. 4?

A. We arrived at Glencoe at nine o'clock in the morning, and looked around a few moments, then took a trip into the mine, stopping at the 3rd north entry. The dip at No. 1 room was twenty-one degrees westerly.

Q. Before you go into No. 4, do you recall whether the outcrop indicated the thinning of this coal going south from No. 3, between No. 3 and No. 4?

A. Between No. 2 and No. 4.

Q. Yes, between No. 2 and No. 4.

A. Yes, sir; as I related, its thickness—the proposed mine No. 5 of the Diamond Coal & Coke Company is in that territory, and between No. 2 and No. 4 mines, also the diamond drill hole No. 4, which was noted this afternoon. Neither the drill hole No. 4 nor the proposed mine No. 5 showed a thickness and cleanliness of the coal bed that would be necessary in order to render the intervening ground very valuable.

Q. You gave the details, I think, this afternoon in reference to the outcrop compared with the showing below?

1094 A. I did, yes, sir. It compares favorably.

Q. Go ahead with No. 4.

A. From the slope at No. 3 north entry we proceeded north on the 3rd north entry to No. 1 room and took the following section which is marked S. on exhibit 16 and A. 1. on exhibit 19: sandstone roof; five inches of shale; four inches of bony; eight inches of shale; soft and black; three feet, four inches of coal, soft; two inches of clay shale, light colored; one foot, six inches of coal; one inch of bone; six feet of coal; three inches of shale; four inches of sandstone; two inches of shale; one foot, five inches of dirty coal; four inches of bony and argillaceous sandstone, which is the true floor of the bed at this point. I will state also that the working floor is the bottom of the six foot bench of coal.

Q. The coal below that is too dirty and mixed up?

A. Yes, and the way we came to get the measurements of that through there is that a chute and holes for track purposes, for loading purposes, were driven in at right angles to the entry and driven in on the level, and in that way gain on the floor, giving us these sections.

Q. That carried it below where they had mined to?

A. Oh, yes, that carried it below the mining floor, the working floor, which is the bottom of the six foot bench. We proceeded thence along the 3rd north entry to room 15, where we took the following section, marked T. on exhibit 16: sandstone roof; four inches of shale; one foot, seven inches of coal; one inch of shale; seven inches of sandstone, yellowish; four inches of shale, black; two feet of coal, granular and worthless; five inches of bony; eigth inches of coal, granular and slately; one inch of coal, shaley; six feet of coal. The bottom of that six feet of coal is the working floor, but it is not

1095 the bottom—I want to retract that—two inches of bony and one foot of coal and the bottom of that one foot

of coal is the room floor. Then, the chute holes for the track gave us the rest of the section, that is, nine inches of shale, eleven inches of dirty coal; seven inches of bony; four inches of shale and sandstone. We proceeded thence north along the 3rd north entry, noting just inside of room 15 a small down-throw at the northwest of about seven feet; the course of the fault is to the northeast. Twenty-five feet north along the entry compensation up-throw occurs, the two faults together making a trough fault. Thence to room 23 where the following section was taken, marked Q. on exhibit 16; sandstone roof; three inches of shale; one foot, three inches of coal; nine inches of coal, granular and worthless; eleven inches of shale, soft and black; three feet of coal granular and soft; one foot, three inches of coal, slately; six inches of sandy shale; nine inches of coal; six inches of bony; one foot, six inches of coal; three inches of bony and then a shale floor.

Q. Where is your room floor there, the mining floor?

A. The room floor would be at the bottom of the one foot, three inches of coal.

Q. It would be just above the six inches or arenaceous shale?

A. That sandy shale would form the working floor.

Q. You have got two one foot, three inch, benches of coal there?

A. Oh, yes; I see there is another; that is true. The six inches of sandy shale forms the working floor.

Q. Does that section show a workable seam?

1096 A. I should say not; decidedly not.

Q. Now, your next.

A. We then proceeded north to the face of the 3rd north entry over badly caved ground, where the following sections, lettered V. on exhibit 16 was taken: sandstone roof; one foot, one inch of bone; three inches of shale, black; one foot, two inches of shale, light colored and weathering in the presence of water to a soft mud; four inches of black shale; six inches of coal; one inch of shale, light clay shale; two feet of coal, granular and worthless. The face of the 3rd north entry is seventeen hundred and ten feet north from the main slope.

Q. And did it show the limit of the workable coal?

A. That first section is absolutely worthless.

Q. What do you say as to whether you have gotten into the same area of thinning which you approached in the other direction from No. 2?

A. I fancy that is the other boundary of that same, thin area, that unworkable area.

Q. Now, your next in No. 4.

A. It seems we got out of the mine and ate lunch at the Finn boarding house, then we took the trip and rode down to

the 5th north after lunch. We got off at the 5th north and a reading was taken looking up the slope; we could see directly up that slope and see daylight and it was a good opportunity to take an average dip over a long sight. We got about a two thousand foot sight there, and it gave us twenty-two degrees of dip looking up. I believe that slope to be practically on the true dip, as I recollect it.

Q. At right angles to the strike?

1097 A. Yes, sir. Thence we traveled into the face of the 5th north, which is driven entirely in solids without rooms. The face is eleven hundred feet from the slope, and the entry which was driven nine feet wide has caved out at the sides to twelve and fifteen feet for about one hundred and fifty feet from the face. The following section, marked X. on exhibit 17, was taken: sandstone above the roof and then one foot, six inches of shale, which was rather blocky; three inches of soft, black shale; then, one foot, two inches of bastard coal; six inches of soft, black shale; two feet of light colored shale; two feet of coal, granular and worthless—no, shale, eight inches; coal, bastard and poor, one foot. I see here that the floor is marked sandstone, but opposite that I have marked: "Not exposed.", but that must have been in the immediate vicinity of the floor. That was about as bad a spot as we reached in that mine at all.

Q. Does that show any workable coal there at all?

A. No, sir.

Q. There are no rooms at all in that entry on the north?

A. No, sir, and the entry is, as I have said, eleven hundred feet, which is purely a prospect entry.

Q. That shows your region of worthless coal there in No. 4 increasing as you go down toward the deep?

A. Yes. One moment: I find here we have a further note, which I wish to qualify my last answer with. The coal in the 5th north is worthless in the face, and gradually improves in quality and quantity as you travel south, and it is normal at a point about three hundred feet from the slope, from there back to the slope in a southerly direction, and a section was

1098 taken in the slope at the 5th north entry which is marked W. on exhibit 17, and reads as follows: sandstone roof; six inches of shale; one foot, three inches of shale, soft and cross-bedded; six inches of coal, dirty; one inch of light colored shale; three feet of coal, granular and worthless; one inch of shale, light colored; seven feet, three inches of coal; shale floor. That, while there would be something to contend with in the operation of that coal, filled up as that is, it is a fair, operating proposition. We proceeded thence down the slope to the 5th south entry and south in that entry to room No. 1. I will state, so that there may be no confusion about this,

that the entries in this mine are—for instance, the 4th south is opposite the 5th north, and the 5th south is three or four hundred feet down the slope from the 5th north. The section taken at room No. 1 on the 5th south entry is marked Y. on exhibit 18, and is as follows: shale roof; one foot of bone coal; two feet, eleven inches of coal, granular and worthless; one inch of shale, light colored; six feet, one inch of coal; three inches of bone, and that is the working floor; then arenaceous shale six inches, three feet, two inches of coal; two inches of shale and one foot, two inches of sandstone, exposed.

Q. Why is that the working floor?

A. It is under one of those—well, the coal below that is purely adventitious; it comes and goes. It would be nothing but one band, or practically nothing, and a foot or two in thickness at the outside. You find it anywhere in the mine, that bench; it is quite uncertain.

Q. What would you say as to that coal vein being of workable value? A. Oh, that is workable.

Q. Is it close to the limit?

1099 A. Well, rather; that is, I should say it is about the fair limit. You see, you have got a six foot, one bench of coal there, upon which to prosecute work. Yes, I should say that that was fairly workable. We proceeded then into the 5th south entry in a southerly direction to the face, which is twenty-nine hundred feet from the slope, where the section marked Z. on exhibit 18 was taken. We have a hard, blocky shale roof, then three feet, three inches of soft shale and coal, mixed and rather cross-bedded, and I see in my note here that I say that this shale falls in taking down the coal, or shortly after; it begins about nine hundred feet north of the face. The next bench in the section is three feet, ten inches of coal, then one inch of light colored shale, two feet, nine inches of coal, three inches of bone and one foot, three inches of coal to the entry floor.

Q. What would you say as to that being of value to work?

A. Well, that would be workable, were it not for the character of that roof or that upper shale and coal mixed. There was quite a body of that, as I note here, three feet, three inches, that falls in blasting the coal; it is bound to fall and mix with the coal. It would affect the value somewhat of the coal commercially, because it would be impossible to segregate all of that material from the coal, and that is about workable at that point, I should think, or where the roof is good, I will say, anyway.

Q. Well, with the roof bad as it was, what have you to say as to its being workable?

A. I should say that was workable.

Q. Now, is that improving as you go down along that
1100 slope to the south on that entry or getting worse?

A. No. You have taken on two bands that do not occur at the slope.

Q. And your coal has become thinner, hasn't it?

A. Yes, the principal bench of coal—well, let us see. Six feet, one—no, I should say not. You see the bands cut the coal in two.

Q. Now, what other sections did you take in No. 4, Mr. Hopkins?

A. We proceeded thence back to the slope and down the slope about a hundred and fifty feet below the 5th south entry we took a section of the slope, and it is marked A. 2. on exhibit 19 and is as follows: shale, hard but cloddy; one foot of bony; one foot, six inches of coal, granular and worthless; one inch of shale, light colored; three feet, ten inches of coal; four inches of shale, black and soft; four inches of coal, and a soft, black, shale floor. That section at that point does not present a workable bed of coal. We proceeded thence down the slope to a point just below the 6th south, back entry, noting the tough, light colored clay band coming in in a rapidly increasing size, and from a point just inside and below the 6th south, back entry, in a distance of twenty-five feet it increases from nothing to thirty inches. That takes up as far as we could see for the water which is in the bottom of the slope. That is the bottom of the slope.

Q. And shows this streak increasing to the south?

A. Increasing down the slope, to the west.

Q. Did you take another section along this slope?

A. Yes. Thence we went into the 6th south, back entry, which was the lowest working to the south, about sixty-
1101 five feet to the face, where we took a section marked A. 3. on exhibit 19. The section is as follows: roof, shale; six inches of coal and slate mixed; one foot, four inches of coal; one foot, eight inches of shale, black, soft and wavy bedded, coming off with the coal; four feet, six inches of coal, with occasional shale lenses in this bottom four foot, six inch bench. In the slope from this point to the surface it is about twenty-five hundred feet, and I note that they have the overburden marked at about six hundred and fifty feet.

Q. What does this show, this section A. 3., as there shown practically at the face of that slope?

A. Well, that is not a workable face, in my estimation.

Q. Did you take another section along that slope for the purpose of comparison? Or how near the slope?

A. The next I have got is 8319.

Q. You have just given this. This section of room 1 in the 3rd north entry; you gave that before? A. Yes, sir.

Q. Well, that is all the sections you took in No. 4, then?

A. That is all the sections we took in No. 4.

Q. Now, from the sections and your examination there what was the condition of the vein as you go down, improving or the other way?

A. No, the conditions shown as you go down the slope in a westerly direction, the coal bed decreases in workable value and commercial value until, at the face and at the bottom of the slope, I should consider that it was beyond the pale of what could possibly be called a workable bed of coal by an operator.

Q. Did you notice any particular change in the quality of the coal from that near the top, even where it is being worked?

A. Well, this last section as given showing those shale
1102 lenses coming in, of course, that is a detriment, but I should say the general character of the coal was very similar, where the coal was good it was a good coal.

Q. What do the workings show on the north side of the slope in No. 4?

A. The workings on the north side of the slope are unsatisfactory at the points visited, and I take them to be a fair criterion of the value in that direction.

Q. And on the south?

A. On the south, in my estimation, at the point visited here, which is now being driven ahead with the hope of some improvement in the character of the bed, which seems to be the policy of the people operating the mine, to be undesirable as a working proposition. There were no rooms turned off.

Q. You judge that, not from conversation, but from the condition of the workings?

A. Oh, from the conditions, certainly, and as I say, it is a very serious matter, that three feet of material which is bound to fall with the coal.

Q. What bearing does that have on the cost of the mining operation, that falling rock?

A. Of course it has to be handled in the narrow working and also in the rooms, but it practically has to be handled out of the mine in the narrow workings.

Q. Does it add any considerable percentage to the cost?

A. Well, the principal damage of that would be in the destruction of the cleanliness of the coal; that is, it would be almost impossible to keep that out of the coal. You occasionally buy coal for your own use, and if you got a load of coal of
1103 that kind from your coal dealer, you would be very apt to send it back; it would produce that kind of coal. You would produce that kind of coal under those circumstances.

Q. Now, what are your conclusions as to No. 4?

A. Well, No. 4 is very disappointing from the indications at the surface where that mine started; the crop showing there, I

think, was about as good a one as I have ever seen on that entire crop north and south there for forty or fifty files, and the development work in no part compares with the surface exposures.

Whereupon further hearing was adjourned until Thursday, April 23rd, 1908, at 9 A. M.

1104 Thursday, April 23rd, 1908, 9 A. M.

Direct examination of Mark Hopkins, resumed:

By Mr. Evans:

Q. Mr. Hopkins, you spoke yesterday about this want in the Cumberland mines on the south end of this field that we are discussing, and I wish to ask you how that want was encountered with reference to its being approached unexpectedly in a short distance in your workings?

A. Why, it was reached, not exactly a perpendicular wall, but nearly so; it was so close to a perpendicular wall that we afterwards drove a room up on the 2nd floor which struck this want, developing the want for the entire distance up to the level above it, or nearly so; in fact, the first level of the mine barely missed the eastern edge of that want by about five or six feet, so barely missed it that a level was driven for a long distance there.

Q. Without disclosing it at all?

A. Without disclosing it at all.

Q. Now, Mr. Hopkins, what are your conclusions as to your underground examinations of the Diamond mines, and the knowledge of the underground developments of the Cumberland, up to the time you left those mines, as to verifying your conclusions as to the value of that outcrop showing, as to the character of the lands that are away from the outcrop on the dip or beneath it?

A. In a general way I should say that an outcrop showing is no absolute criterion of what you may get below. A good outcrop at the surface may represent a want below, or a want at the surface may represent a coal below. The deposition,
1105 in a general way, is irregular and uncertain; it is consequently impossible from any outcrop data, an outcrop being an arbitrary line drawn by erosion across a portion of the field—it is absolutely impossible from that showing to determine what may occur, either for or against the lands below it.

Q. What I mean to ask now is what would you say from the result of your examination and knowledge of these mines underground as to whether they show or illustrate the uncertainty and irregularities of coal fields

A. The mines as far as they are developed today show that they have practically exhausted the irregular shaped body of

coal into which they have projected with their slopes. I would say, and I have already stated heretofore, that there is no regularity about these cretaceous coal depositions. Generally the workable areas occur in what might be called irregular shaped, circular masses, and it is impossible for me to say or for anyone to say, where this is good and that is bad, this is good and that is bad, from any data which can be obtained except actual development.

By Mr. Birch:

Q. A kind of going dry, that would be.

A. Exactly, and nothing else.

By Mr. Evans:

Q. Did the developments in these Diamond-Cumberland mines illustrate these uncertainties as far as you know?

A. They certainly do, and they are not unique in that matter; they are pursuing the rule which is true of all these cretaceous coal fields, and I am acquainted with those of Utah and Wyoming and Colorado, and as far as my knowledge goes,
1106 and I have had excellent opportunities, both by operating and by observation to know, those are the facts.

Q. Mr. Hopkins, you stated yesterday that you were personally familiar with the surface of the country on and adjoining this coal horizon for a distance of something like sixty miles, from Hilliard on the south, to a few miles of Willow Creek, on the north? A. Yes, sir.

Q. What mines are there opened in that entire distance, giving about the extent of work covered by each mine so that we can get an idea of the open or mined area upon that horizon, as you know it.

A. Well, presaging a statement of that kind, I desire to say that that entire outcrop has been pretty thoroughly prospected over quite a long term of years. The southern end was prospected because of the proximity of the Union Pacific Railroad main line, and on account of its being more accessible than the northerly or intervening ground. The results of the prospecting has been the development of No. 1 and No. 2 mines, Cumberland.

Q. Covering about a distance of what, approximately?

A. Well, I was going on to say that there was another small mine developed in a small way, called No. 3 mine, Cumberland. If you include those three mines, you cannot credit to either one more than a mile; that would be a mile apiece.

Q. Three miles?

A. Three miles. Further north you have the No. 4 mine of the Diamond Company, which from the map is entitled to a mile and a half or in that neighborhood; then you have an in-

terval, and then come to the No. 2 Diamond mine, which is entitled to over a mile, a mile and a quarter or a mile and a half; then the No. 1 Diamond mine with its mile or
1107 mile and a quarter. The No. 3 Kemmerer comes next with its mile, and No. 1 Kemmerer with another mile.

Q. How much to those Kemmerer mines?

A. A mile to each one.

Q. That would be two miles?

A. Yes, sir. Those, beginning at Willow Creek and going south are the mines that have been developed and are operating on an outcrop sixty or seventy miles long.

Q. Now, do you know of the new mines that Mr. Quailey has started to open or is contemplating opening?

A. I know the territory somewhat, but I don't know the exact location of those mines; that is, I have never been at the opening.

Q. You knew the country in the previous years?

A. Yes, sir, oh, yes. I understand that his mines are shut down for want of a market; in fact, Mr. Quailey or the Kemmerer Coal Company—I know by repute they have four mines, these two that I have mentioned and two new ones, and they are only working one of their mines with a small force of men at the present time.

Q. Now, Mr. Hopkins, you have spoken about this sixty mile area upon this horizon being prospected thoroughly. Do you know, personally, as to whether or not the operators in that district have been anxious to open new mines, if places could be found, upon this outcrop?

A. I am positive that the Union Pacific, who, through their land grant, control the country south of Cumberland, the outcrop or horizon—that land there—have endeavored to open
1108 or find a location for another mine; they made that attempt in 1901 to my certain knowledge, because I had charge of the work, and I know when I began. The actual outcrop work done prior to that time did not warrant the location of a mine south of Cumberland No. 1, and it was with a desire to re-prospect and go over that thing again, to see if something had not been overlooked, that we began to re-prospect that same territory in order to determine whether we could open another mine, and I will say that the result of that work was entirely unsatisfactory and I do know that when they opened a new mine here a year or so ago, that is, this No. 3 mine, they opened it on a little patch of known coal near one of their working mines, in fact, almost a portion of one of their then working mines, instead of opening at some other point on this outcrop. Logically that would mean that they could find no other place good enough for a

mine except this little piece of land which they owned next to their No. 2.

Q. Mr. Hopkins, in your opinion, is there a place upon this coal horizon, this Kemmerer-Cumberland coal horizon between the Diamondville No. 4 and the Glencoe mine and the north Cumberland mine, No. 3, where a new mine could be opened, or where you would advise a client to even open a new coal mine?

A. No, sir, there is no point that I know of on that crop, and after this investigation I consider that it would hardly be worth re-prospecting with an idea of discovering such a place on that crop.

Q. Now, taking the entire horizon as you know it, the sixty miles or so that you know, in your opinion, is there a place in that entire length, outside of the ten or twelve mines that you have given, covering an area of ten miles or so, where a new mine could be opened, or where a practical man
1109 would be justified in attempting to open a new mine?

A. No; to my definite knowledge there was one place where the outcrop showing was good about five or six miles south of No. 1 Cumberland, but we put a drill hole ahead of that, and the results were entirely unsatisfactory, and a short distance both ways from this point on the outcrop, the outcrop showed poor and thin, too thin to work, so that that eliminates that point, and outside of that I don't know of any other place that would even warrant prospecting.

Q. In your opinion, is there such another place from what you know of the surroundings?

A. From what I know, I should say not. The entire southern end of that field till you get to within ten or fifteen miles of Cumberland has been very thoroughly prospected and in no case has a commercial, workable bed of coal disclosed.

Q. Now, Mr. Hopkins, will you look at this map, which is the map prepared by Mr. Veatch, or under his direction, and is marked complainant's exhibit No. 311 in this case, and tell me about how many miles are represented upon this coal horizon that you have been talking about; roughly, about how many miles are shown on the map?

A. Just let me get at this. I should say, roughly, in a direct line, it is about seventy miles or a matter of that kind.

Q. Well, without scaling it, perhaps, I will suggest another way of getting at it roughly upon this Veatch map. You have already given your approximate idea of the distance upon the horizon that you know between Wilow Creek and Hillard?

A. Yes, sir.

Q. Now, the map shows, just counting the townships on the map, about how much distance north of Willow Creek upon this horizon?

1110 A. About ten miles.

Q. And about how much south of Hilliard?

A. A matter of six or seven miles.

Q. Now, in the entire distance shown by Mr. Veatch, are there any open or working mines except those that you have mentioned?

A. No, sir; in fact, the points at which the present mines have been opened have been the result of rather strenuous prospecting which was done there for a number of years in an endeavor to discover where some of these lenses or these irregular shaped areas of coal would be, which would be of sufficient extent to warrant the development of a mine.

Q. Mr. Hopkins, from your knowledge of the lands in controversy in this action, what have you to say as to whether, in your opinion, any of these lands in controversy contain coal sufficient to justify the necessary expenditure to develop and extract that coal?

A. That is a question which no man can answer honestly and fairly. I understand that some people have seen fit to answer that question positively and affirmatively, but I am not prepared, personally, to either affirm or deny that this land does or does not contain coal. I contend that it is beyond the capacity of any man to say that something exists or does not exist upon which he has no absolute testimony.

Q. The question was not exactly whether it contained coal, but from the evidence that you have—

A. In a legal sense or in the common acceptance of the term, the land is undoubtedly non-mineral and non-coal.

Q. Certainly, I am going to get to that. But now, what

1111 have you to say as to whether the land, in your opinion, from the present showing and the situation and everything, is valuable for coal mining purposes?

A. The land is not, in its present condition, even presumably valuable for coal in consideration of the outcrop showing and the experience at the mines of the Diamond Coal & Coke Company and in the vicinity of these mines; I should say that the land did not even have a presumptive value.

Q. What would you say as to whether the land from the present showing, the lands in controversy, from the evidence that you have regarding them, are more valuable for agricultural than for mining or mineral purposes, including coal in mineral, and including in agricultural, of course, the grazing character of the land?

A. Well, there is a chance of a sort of facing up the two propositions there and arguing from either side. I should say, however, that in my estimation the land has no special value and practically no value as coal land. One would be very

much in the position, I should say, with that land, of the man who owned a race horse which cost him some money to have the use of. However, the land does have a fixed, absolute grazing value; that value is fixed by the Government of the United States at one dollar and twenty-five cents an acre; by the Union Pacific, who have some of their land grant lands adjoining this country, and by actual transactions in other ways; and roughly, I should say that land of that character in this country would be worth from one dollar to two dollars and a half an acre for grazing purposes. Of course, there are no state lands here by which one can determine the state's price, for they are limited to a price of ten dollars per acre in case of a sale. Of course, these lands are of no such value,

1112 even though a portion of them might be state lands; but they are worth from a dollar and a quarter to two dollars and a half an acre, roughly, for grazing purposes. Now, there is a certain, distinct value. That is about all I have to say.

Q. In your mind, as I understand it, then, in your opinion, it would be more suitable for that purpose than for coal mining?

A. Well, it certainly is, from the fact that it has a certain, definite value for grazing, and not for coal.

Q. Now, Mr. Hopkins, what would a coal man have to do to prospect this ground and definitely and accurately ascertain whether there is any coal beneath any of it?

A. The proper way, of course, and I mean by the proper way, the ordinary way and the more economical way—would be to prospect as far as possible with a diamond drill, and by as far as possible, I mean to a depth as great as possible, from which he could obtain an absolute core, and the core, of course, would represent the knowledge you were after as to the characacter of the coal and the thickness of it, etc. There is a limit to the depth from which you can obtain those coal cores. I never have seen, while I have spent a great deal of time drilling one way and another and had it done under my direction—I never have seen a core from a bituminous coal bed which came from over two thousand feet in depth. I want to be understood as saying that I know that diamond drill holes can go to over a mile in depth in granite and limes and rocks of that kind, where the core is not specially important; but I am speaking in a prospecting sense now, of a diamond drill in soft coal measures, and I would limit the depth of the hole to something like two thousand feet, at which you could obtain a core from a coal bed.

1113 Q. Are there difficulties in prospecting, even to that depth, in getting a core that would clearly or accurately show the material though which the drill was being driven?

A. Yes, there are difficulties. Of course, in the strata that are found with coal, they are usually soft shales and clays, and you have to put in a pretty good sized hole to get a core at all, and use a double core barrel. For instance, these holes of which we have a record in this case, were sunk with a single core barrel, and the friction of the core in that single, revolving opening ground it to pieces; that is the reason I am so positive that there could have been no core from these drillings, a coal core. There is another feature; the strata would be lying at an angle, and the drill hole would pierce them not at right angles to the dip, so that the stratification lines or planes of material passed through would be on an angle across the line of the core, and the minute a piece of that core broke loose and began to revolve, it would be revolving on the edges against other edges and would grind it up; it would not be as if it was flat, so that it could slide around, even, and I say, taking everything into consideration, I do not believe that ground of that character can be successfully prospected at a depth from the mouth beyond two thousand feet. That would leave for the purpose of prospecting this land in question—it would leave the other resource of shaft sinking or of development by slope from the surface or the outcrop of the horizon. I will say that if diamond drilling was attempted, of course, the hole, while it might be sunk and find good coal, it might merely be a small area surrounded by an unworkable area or it might possibly go down in an absolutely unworkable area and there might be a workable area somewhere in that vicinity. But when-
1114 ever anyone talks about prospecting with a drill, one hole to a section or one hole to a quarter section would hardly be sufficient to prospect that land in view of what has occurred in the absolutely developed mines at the outcrop.

Q. Have you given the cost of diamond drilling; what is the approximate average cost?

A. I did not state as to the cost. I will state, however, that the most expensive diamond drilling is the deep diamond drilling; the cost increases. A two thousand foot hole, where you insisted on a core, I suppose—I don't know that you could contract with anybody who would agree absolutely to furnish you a coal core at that depth, but if you could, it would be at almost a prohibitive price in a drilling way; it would be not less than ten dollars a foot for the hole.

Q. Give us the run of the cost of drilling at the different depths.

A. The run of the cost where you were not very particular whether you got a core or not—

Q. No, give us the cost of good results.

A. You mean a prospecting hole for the purpose of getting the full core?

Q. Certainly.

A. I would put the absolute cost of a hole of that kind at about seven dollars and a half a foot, the real cost of it. The shallower hole, like a thousand foot hole, for instance, would probably cost from three dollars and a half to four dollars a foot.

Q. Would such prospecting, that is, thorough prospecting of that kind upon these lands in question here, would it be justified by any showing there?

1115 A. Well, if one was in dead earnest, and wanted absolutely to know what was down beneath the surface of those lands and would plan a campaign of holes which would at least be so arranged as to develop the underground of every forty acre piece of each section of that land, then, I should say that your drilling might be resorted to, but the expense would be enormous, and far beyond the presumable value of the land from any indications that we could get from the outcrop or from the mines now opened.

Q. That is what I mean. Would a practical man be justified in thoroughly prospecting this land in that way?

A. I should say not.

Q. Of course, your diamond drilling would simply result in the information as to what there was there; you would have the same cost afterwards in opening it up?

A. Oh, yes, certainly; and as I say, one hole merely might drop down on a poor showing of coal, and it might be at the very limit of expense, or it might drop down on an absolute want and you never would get any coal there, but those are mere matters of conjecture. That conjecture is based, however, on what you can see from the outcrop indications and the developed mines; that is the only basis upon which anyone can form an opinion regarding the value of these lands there as coal lands or anything else. The only evidence that can possibly be used is the inferences drawn from the outcrop and from the present existing mines.

Q. Mr. Hopkins, what effect would it have on the value of these lands, the ownership or non-ownership of the outcrop of the coal which may be under these lands in controversy for mining purposes; what effect would that have upon the situation there as to mining those lands?

1116 A. Well, it would preclude those mines, practically the bulk of them, from slope development. I say the bulk of those lands; of course, you might pick out perhaps a single point on some of those lands that is within the possible zone of slope development, but I very much doubt, in fact, I

affirm positively that the larger p[illegible]tion of the areas represented in these brick colored lands on this [illegible]bit No. 280 are too far away from the outcrop for possible slope development, even if you owned the outcrop.

Q. But, of course, without the ownership of the outcrop you could not have slope development? A. No.

Q. Then, how would the lands have to be mined?

A. They would have absolutely to be developed by shaft.

Q. What effect would that have, the non-ownership of the outcrop, upon the lands as a mining proposition; how would the necessity of shaft mining effect it?

A. I don't think that would affect it at all; I do not so consider. If you owned the crop, you could not reach it from the crop, because it is too far away, so it does not cut any figure. When you get out there into that valley you are up against it absolutely beyond peradventure; it would have to be developed by shaft. Of course, shaft mining, if you sunk a shaft there, you would expect to sink a shaft to develop a certain section there as far each way as practicable on account of the drainage of your mine, and bringing your coal to the shaft. The drainage would be the main feature, however. But I say that the possession of the outcrop lands, of the land to the east of the lands in controversy, is of no importance economically as regards the operation of these properties, because the property is
1117 mainly and chiefly beyond the reach of slope mining on that pitch.

Q. But taking the small portion of these lands which lie near enough to the outcrop to be mined from slopes, how would they be affected by the fact that they would have to be mined by shafts; I have in mind the two eighty acre tracts in section 18.

A. You say you have in mind the parts of section 18?

Q. No, I have in mind this portion section 20 in township 20 and these portions of 18, the two eighty acre tracts there, the lands which you undoubtedly had in mind when you said some part of them were near enough to the outcrop to be mined by slope mining.

A. Well, you know, without some arrangement with the owners of the outcrop mines, you would not be able to reach them by a slope.

Q. Well, if you had to mine those particular pieces by a shaft, what would the increased cost be and what would the effect be on the situation?

A. A shaft? Oh, the area of land as shown there in, say, section 18 is insufficient to do any kind of mining on; I would say, in fact, that it was not of sufficient area to warrant slope mining.

Q. What would be the effect of being required to mine there on that part of these lands or any part of these lands by shaft mining; would it be more expensive than slope mining or how would it be?

A. Yes, it would be considerably more expensive; in fact, I am inclined to think—it is very hard to answer a question like you are asking me, for the reason that as you go across from the east boundary of section 18 in township 20

1118 north, range 116 west—now from the east boundary of that land to the west boundary, the difference of the surface covers is seventeen or eighteen hundred feet or may be nineteen hundred or two thousand feet on this very piece of land, from one side to the other. Now, one can take that east side of this land, or the middle, or the west side, and you have that difference. Naturally the development of that particular section would be in the neighborhood of the west line of that section, and as I say, there is some confusion when you speak of that land as a whole in an economic way, because you are speaking of entirely different conditions which are coming from the very fact of the location of the land upon different measures. If you asked me whether, taking the section 18 as a section of land—whether I would say that even if known coal were underneath that it would warrant development by a shaft, I should say no, because the development would require a shaft several thousand feet deep where the shaft should properly be put to develop that section, and there would not be coal enough in that one section of land to warrant the cost of that shaft; and not only one shaft would have to be sunk there, but another one is required by law to be sunk there at some interval between.

Q. The law requires two openings?

A. So, when you talk about a shaft, you mean two shafts, not one.

Q. How does the cost of shaft mining compare with slope mining?

A. There is but little difference in the cost if the conditions are favorable, between shaft and slope mining. The initial investment is somewhat larger with shaft mining than it is with slope mining.

1119 Q. And with shaft mining, of course, the initial expenditure is dead work; you are not taking any profits out while you are sinking your shaft?

A. But you still have the coal there to make a profit on later, so outside of the original investment there is no great difference.

Q. Is there any greater cost in operating with a shaft than in the usual methods, by slopes?

A. Well, no, it is about an even break. Of course a great deal depends on the conditions, and there is no blanket way of answering a question of that kind.

Q. It depends on the dip and depth?

A. It depends on the dip and varying conditions. In a flat seam, comparatively flat, and not too far from the surface, like a shaft two hundred or three hundred or four hundred or five hundred feet deep, shaft mining is as economical as any other kind. With deep shafts and steep pitches of the measures, it is open to question; in fact, I am inclined to believe that slope mining would be the cheaper under those conditions.

Q. What is necessary to own in the way of area before you could open a coal mine under conditions such as you have been mentioning; can you open it upon a small tract or mine upon small tracts of land, a hundred and sixty acres or anything of that kind?

A. No, that is out of the question. To open a mine in territory like this requires a large sum of money. We spent at Cumberland in opening those two mines there seven hundred and fifty thousand dollars in about seven months; our estimates were practically that, and that was appropriated for the purpose. I presume the total investment of the Dia-
1120 mond Coal & Coke Company must be in this district alone in the neighborhood of two million dollars or a matter of that kind; that would be my estimate.

Q. Now, in your cost of mining, Mr. Hopkins, what are the main factors which enter into the cost of mining coal?

A. The thickness of the bed, its freedom from impurities; as I say, thickness of the bed up to a certain limit; its freedom from impurities; the surrounding of the bed as to floor and roof, the pitch of the measures, that is, the dip or rise of the coal; those are some of the main features, I do not know that they are all, but they are the principal ones which would affect the cost of mining.

Q. The dip of your vein, the angle of inclination; has that any influence on it?

A. Why, it is of some importance, but it is of more general importance—

Q. How is the inclination of the Diamondville vein as to being favorable for mining, compared with a greater or less dip?

A. Well, it is comparatively favorable at No. 4 mine; at the other mines it is a trifle too flat. The No. 4 mine only needs the use of sheet iron chutes in the road, and at the No. 2 and the No. 1, the pitch is too flat for the coal to run from being bucked down, and it is necessary there to take the cars to the face, and the pitch is rather steep for the track.

Q. No. 4 is steep enough to drop the coal down with its own weight?

A. Well, the coal does not drop down exactly from its own weight, but it can be easily pushed down on these iron chutes. The main difficulty in what the miners call bucking down the coal is walking back up the hill, like coasting down the hills in [—].

1121 Q. Is the cost of timber a considerable factor in mining?

A. Well, the cost of timber, of course, is governed by the surroundings of the coal as principally the roof, and the cost of timber is a material item and becomes more so every year.

Q. How is Diamondville situated in that regard, as to available timber?

A. Well, the present cost of timber, since the public domain has been absorbed by Mr. Pinchot, the cost of timber, for instance at the Diamond mine has increased under the Pinchot management perhaps from about three cents a foot to something in the neighborhood of fifteen cents a foot.

Q. Is there any available timber close to Diamondville?

A. No, there is none close, although at the head of Ham's Fork there is timber there on that stream; they are on a stream there where the timber is pretty good at the head.

Q. Now, how are labor costs in the West, this portion of the West; are they high or not, comparatively?

A. Well the labor costs are high. More at the present time than they have been before through the Western country in coal mining.

Q. Is there any class on the face of the globe from your professional information who get as high wages as the coal miners of this section?

A. Of my knowledge I know of no section of this country or any other where the wages are as high to coal miners as they are here in Wyoming and Utah and Colorado.

Q. Now, in speaking of the costs, you spoke of the thickness of the coal. Is there any arbitary increase in the cost of mining when the coal gets below a certain minimum thickness?

A. Yes. I will say that the present schedule of wages
1122 under which these mines in this Kemmerer-Cumberland district have been operated, it is fixed by the Western Federation of Miners—not that either, but by the United Mine Workers of America, and by agreement between the United Mine Workers of America and the Coal Operators' Association of Wyoming—did you ask me about the increase in the cost?

Q. Whether there is an arbitary increase, or rather, is there an increase in the cost on account of the bands or dirty material, the condition of the coal?

A. Yes, sir.

Q. I wish you would give just what that increase is, what the rule is upon that, if you can; just read it into the record.

A. Well, the lowest coal that is listed in this schedule or agreement is coal between five and six feet at the Cumberland mine, fifty-two cents a ton; sixty and over, fifty cents a ton. They dont list anything lower than five feet.

Q. Why is that; do they contemplate mining anything lower than that?

A. They have very completely covered every detail that they thought might come up in any way in these schedules, and I fancy that they had determined in some way that they never would be asked to mine coal below that.

Q. What increase is there on account of the banded condition or the following roof or anything of that kind?

A. From Cumberland into Glencoe, Diamondville and Oakley, which are practically similar—

Q. Take Glencoe.

A. All right. Glencoe. "Where rock or slate bands either separately or combined exceed five inches in thickness, 1123 the company shall pay one-half cent per ton per inch for all rock in excess of five inches." That is the agreement now in force between the operators and the miners in regard to the operation of this particular coal in question.

Q. Would a band or a following roof come within that provision, where it would come down with the coal?

A. Yes, it would.

Q. If you had two or three feet of that you would be penalized according to that provision?

A. Yes. The custom is that whatever they—I have inquired about this, and I find that wherever the rock has to be handled at all, the penalty begins as to price, and naturally the following has to be handled.

Q. Now, Mr. Hopkins, can you give us from your experience any other concrete examples of underground disappointments in mining similar to the Cumberland, and your own personal experience at Colville, without going at too great extent into it, just to show the uncertainties of mining?

A. Yes, I could give numerous examples. The rule is, however, that taking all the mines that have been opened in Wyoming and Utah, and bunching them together, the good mines are the exception and the disappointments are the rule. I prepared here two or three years ago for my own benefit and from my own investigation and knowledge a list of all the

mines that ever had been opened in Wyoming on the line of the Union Pacific and in Utah at that time, and roughly speaking the list comprises about seventy-five mines, and there are now actually working some twenty-three mines, and I will say [say] that this list does not embrace the small country banks or that sort of thing, but it means large mines which have cost hundreds of thousands of dollars to open and develop
1124 and operate; it is the large mines, not the little ones.

Mr. Hopkins, it won't take you very long. Will you state upon the record the list of these mines which you have just referred to, the date of opening, the date of closing and the reasons, the name of the mine and mention the date of opening, the date of closing and the reason for it.

A. You want me to read this list in the record relating to the mines that have been abandoned?

Q. No, your whole list there; I don't care for the names and officers and ownership or anything of that kind.

A. Now, I will say in beginning here, that the Carbon district was one of the earliest districts opened in Wyoming on the line of the Union Pacific, and that it was operated extensively there as long as there was any coal in that field, and that field was afterwards—

Mr. Birch: I have determined if possible not to raise any objections to anything that you would put in here, however remote from the points at issue. I had a purpose in doing so and am willing to so state upon the record without necessarily giving the purpose. But there is a limit. I had hoped to get through the direct testimony of his witness without having an objection from start to finish. I do not object to your putting in this list, showing the names of these mines and the time of their abandonment and closing, but if we have got to listen to an extended explanation with regard to all the mines in Wyoming that have been opened and closed, I think it is my duty, finally, to object. Now, you can take your own course. I want to be aimable and amicable as far as I can and get the whole truth absolutely. If you wish to have him go on
1125 and explain the history of all these mines and lumber up the record with the history of the coal mining of Wyoming and Utah, go ahead and I will put in a formal objection and we will sit here and listen. But I say it is not right or fair or within reasonable, legitimate limits. I want the whole truth and I want you to have every opportunity to present the truth, but that is beyond the limit.

The Master: Can't you confine yourself to the list?

Mr. Evans: We are trying to put in a complete case, and of course, in our own way. I do not think that counsel, who put in the record instances or geology taken from a book printed in 1852, are in any position to talk about remoteness or departing from the issues in the case. I do not think we have gone away from the issues, but in order to make the record clear, Mr. Hopkins is going to give, and all I desire to have him give is the names of these mines, the time of opening and closing and the reason. It would not take any great amount of time and it would be a material matter upon this record.

Mr. Birch: It is utterly useless to interpose objections as long as counsel desires to put the testimony in, and I simply interposed the objection at this time that this matter is entirely immaterial, irrelevant and incompetent, as being too remote.

Q. Mr. Hopkins, first, the mines that are included in this list that you are going to give are all in this cretaceous field, and have a general similarity to the mines in controversy
1126 here that you spoke of? A. Yes, sir.

Q. Give the names of the property, where situated, the date of opening and closing and the cause of the closing.

A. Well, when I was interrupted I was saying that in Carbon County and Southern Wyoming had been an extensive amount of mining; that they mined that coal field until the coal was exhausted and as there are no mines there now, I spoke of that specially, but I will say that the operations while they did exist there, were fully as large as they are, or nearly as large as they are in the Cumberland-Kemmerer field today. There were three mines there which were large producers. Now, Carbon No. 1 mine was opened in 1869 and closed in 1878; it was worked out, the area that was available. The reason for that was the coal thinned out on the general circle of the mine. Carbon No. 2 was opened in 1882 and abandoned in 1898, and the vein thinned out as the mine projected into it, and the workable area was worked out. Carbon No. 5 was opened in 1884 and abandoned in 1885; there was not sufficient area at that point for a mine, but the Union Pacific Company had gone on with the idea that there was, and had put the improvements there before they determined it, and found that the area was not there and closed down to stop wasting money. Carbon No. 6 was opened in 1875 and abandoned in 1900. The workable area was exhausted, owing to the area in which the mine was started being absolutely worked out as a working proposition. In the Sand Creek district south of Carbon a few miles was the last mine that was opened in that vicinity; it was opened in 1898 and closed in 1903 on account of the poor quality of the coal caused by the banded condition of the coal vein. Hanna No.

2 mine was opened in 1887, and they did very little work
1127 there for a number of years; it was practically abandoned in 1890. They did not work any after that on account of the poor quality of the coal; the coal was soft and badly crushed and did not burn well; it did not have the life at all; it was a dead coal. At Dana, Wyoming, a mine was opened in 1889 and abandoned in 1891. The quality of the coal caused the abandonment at this point. They built a town there and made very extensive improvements, costing half a million dollars. At Black Butte the mine was opened in 1890 and abandoned in 1893 on account of the poor quality of the coal. The quality in that case consisted of too high a percentage of mud; it was very similar to these Adaville and Twin Creek coals over here on the Short Line as far as that feature is concerned. At Point of Rocks the mining has not been extensive in later years, but was quite extensive at very early days. The mines there were abandoned on account of the quality of the coal. The Vandyke mine at Rock Springs was opened in 1869 and abandoned in 1870 and was afterwards reopened in about 1890 and ran a few years, a couple of years, but it was again abandoned and the cause of abandonment there was because the coal bed while clean and excellent quality of coal, rarely got over [—] feet thick; it ran from four feet to four feet, six inches. Rock Springs No. 2 mine was opened in 1871 and abandoned in 1875. The vein changed from ten feet of clean coal to an unworkable banded condition. Rock Springs No. 3 mine was opened in 1875 and abandoned in 1899; the vein thinned out and the workable are was exhausted as the mine projected to the north. Rock Springs No. 4 was opened in 1884 and abandoned in 1892: The
vein changed from ten feet of clean coal to a vein of coal
1128 and slate mixed, absolutely unworkable. Rock Springs No. 5 mine was opened in 1885 and abandoned in 1889; it was faulted and had a very limited area of workable coal. Rock Springs No. 6 was opened in 1885 and abandoned in 1886 on account of the poor quality of the coal; that is, it had too much moisture. That is a coal above the horizon of the present working coal at Rock Springs. Rock Springs Coal Company No. 1 at Blairtown was opened in 1888 and abandoned in 1889. The coal bed at the outcrop of that mine was about ten to eleven feet of clean coal, practically, and as they drove to the deep there it changed into a very slatey, banded condition, which precluded further work on that coal seam. The Twin Creek mines up here west of Kemmerer were opened in 1884 and abandoned in 1885 on account of the poor quality of the coal; that is, the coal contained too much moisture. At Spring Valley, Wyoming the Union Pacific opened a mine in 1900 and abandoned it in 1905; the coal bed was too small and the other conditions too difficult to maintain the operation; the other con-

ditions consisted of fire damp and a bad roof. No. 4 mine Alma, belonging to the Union Pacific was opened in 1880 and abandoned in 1896 after getting at a reasonable depth in the operations of this mine, and by reasonable depth I mean three thousand to thirty-five hundred feet, something like that—

Q. Vertically

A. No, on the incline—the overburden affected the pillars and caused them to fall off, the coal to fall off the pillars, and the pillars began to crush, and then spontaneous fires would come caused by this crushing, and they were practically unable to keep the mine open on account of those spontaneous fires. That was the cause of abandonment. Alma No. 5 mine
1129 belonging to the Rocky Mountian Coal & Iron Company, was a large mine, opened in 1890 and abandoned in 1905. The coal at that time cost too much to produce in competition with the Utah Fuel Coal. This property was reopened, I understand, last fall, but I do not know the present condition of the work; I fancy they are doing practically nothing; I don't know where they could be marketing any considerable amount of coal.

By Mr. Birch:

Q. Well, what you fancy goes?

A. I suppose it does; it has got to go. This is a sort of a fancy case all through.

Well, I could go on down the list of these mines indefinitely, but I think that is sufficient. Getting out of this field here, this Alma coal field is practically not a working coal field today; it is true there is a little, small operation left over there, but it is of no material consequence in the coal world or in a market way, and with that eliminated, this coal field is absolutely worked out today. The extent of the field is probably five or six miles on the outcrop over here; the north end of it, as well known, the measure of the workable coal becomes principally a big bed of clay; it is well known; that coal field is right here within four or five miles of it, in sight of Evanston, and I don't think there is any necessity of going further and going over into Utah and reiterating this same line of testimony, because the same conditions exist, practically over there.

Q. Then, how many mines are closed down from your tabulated data there? A. Oh, about forty or fifty.

Q. Out of seventy-three?

1130 A. Yes, out of seventy-three, comprising a period of time running from 1870 to 1906.

Q. Mr. Hopkins, I forgot to ask you in its place, the effect of overburden on coal mining, the effect of depth as you go down?

A. The effect of the overburden, of course, depends largely on the material of which the overburden consists and the dip of

the strata and the character of the surface itself, that is, as to whether it is high mountain or low valley and so on. The conditions in this particular stretch of country would make the overburden proposition one to be very thoroughly considered in any mining venture. Taking the present showing as made in No. 1 mine at Diamondville, where the area of coal has been worked out as the work progressed has only been about one-third of the total contents of the coal bed, leaving extraordinarily large pillars and taking an exceedingly great precaution to prevent the squeezing and crushing effect caused by the movement of a large body of strata that way—it is found that they have been unable to prevent that movement, and that the mines where this movement is shown, is under the weight of somewhere in the neighborhood of a thousand feet, I should say, of overburden. Now, that condition is shown there very plainly, and what impressed me about the conditions where this crushing effect was shown was that the crushing was the most severe opposite these long blocks of solid coal that they have left intact. When you came to a room it seemed to relieve the thing a little and that the crushing effect was not so marked, although of course, it continued, but the extreme effect of this overburden was felt where these large blocks of coal had been left untouched. It would seem from the conditions there, that it would be practically impossible to operate under the exisitng condi-
1131 tions there to a much greater depth, if the coal bed would warrant it, than at present in the Diamondville mines. I will say that when you go ahead and take out only one-third of the coal in advancing work, that virtually amounts to working on the retreating system; it is a modification of the retreating system, as against going ahead and taking out sixty per cent. and sixty-five percent. and leaving only thirty or forty per cent. for pillars; when you do that kind of work as is done in that mine today and has been done there in the past, you are really working a modified form of the retreating, mining system.

Q. Now, of that two-thirds which is left in the Diamondville mines, Mr. Hopkins, will any great part of it be recovered, in your opinion?

A. Well, I would not be prepared to state; however, my impression is that the percentage to be recovered of the coal that has been left in the mine there now will not exceed at the outside twenty percent., and may be less.

Q. Now, to boil it down, what have you to say as to whether the greater part or a very great part of the lands in controversy are situated so that if coal does exist it would be too deep to reach from the investigations and observations you made around Diamondville?

A. Well, I should say that, assuming that fact that coal exists in paying quantities under the land in question, there

would still be this question as to the propriety of developing mines on it. I hardly care to venture an opinion one way or the other, but certainly the deeper portion of this land would not be available under any conditions as coal ground, for coal mining.

Q. And would that include a great part of the land according to the dips that you have taken?

1132 A. It would include the major portion of the land, yes, sir.

Q. Now, did you observe the surface of that valley and that country there so that you could say whether it could be determined from an observation of the surface whether there are strike faults of magnitude interrupting that vein below the surface?

A. There are no strike faults disclosed either in the workings or on the surface. Of course the surface of that valley as between the coal horizon outcrop at the base of the Oyster Ridge and the Lezeart sandstone several miles across the valley to the west—between those two horizons the Oyster Ridge and the Lezeart, there was absolutely no exposure of any measure between the two. It is presumable from the configuration of the ground that that interval consists of shale, and those shales do outcrop in the neighborhood of Hilliard, as I state. The valley is very smooth and soil covered and here are places there where you would have to go several miles to pick up a stone to throw at a cow, so that you would have absolutely no opportunity for saying that there were faults or that there were not faults; there is absolutely no evidence there one way or the other. The presumption would be that if there were any faults in the country, that they would be sympathetic faults with the large Absaroka fault, lying to the west of this coal basin, as designated on this economic, geology map here.

Q. Mr. Hopkins, have you read the report of the sections along this coal crop as given in Professional Paper No. 56, by Mr. Veatch, introduced in evidence yesterday?

A. I particularly read those portions which relate to the outcrop in the vicinity of these mines in question.

Q. Or between Kemmerer and Cumberland?

1133 A. Yes, sir.

Q. What have you to say as to whether the condition, the result of the sections as given in this Professional Paper No. 56, confirm or dispute your opinion of that outcrop and the conclusions which you draw from it?

A. By a comparison and that sort of thing I find that his sections, at certain points, as given agree with the sections which I took personally along the same outcrop, and in no case do I find, where I am able to get an absolute comparison,

that his sections show a better condition at the coal outcrop than is shown by my sections; in fact, it rather surprises me that he could not have found more coal along there in some holes, if he had looked for it.

Q. And his sections, then, taking the data given in his sections, it confirms your opinion of this coal vein?

A. His sections absolutely confirm my investigations and my opinion regarding that coal outcrop.

Q. You are familiar with this Union Pacific map a print of which has been introduced in evidence by the complainant in this case, are you not?

A. Yes, sir; part of the work on that map was done under my personal supervision.

Q. And did you examine the record of the sections given upon that map? A. Yes, sir.

Q. What have you to say as to whether they also confirm your opinion as to the condition of this outcrop or coal horizon?

A. They are corroborated everywhere.

1134 Cross-Examination

By Mr. Birch:

Q. You made a distinction in your testimony between the carboniferous coal of the East and the cretaceous coal formations of the West. How far west in the geography of the country do these carboniferous formations extend?

A. Would you please give some meridian line or some point?

Q. No, merely by the states.

A. Some parallel of latitude?

Q. Oh, in a general way.

A. Well the line of the carboniferous formation—of course the carboniferous extends over this Western country, in fact, extends over the continent. The chief ore deposits of the Rocky Mountain country is in the carboniferous for the reason that it consists here of large bodies of limestone, which were undoubtedly the deep sea bottom at the time the Eastern carboniferous was receiving its coal deposit and was practically swamps very nearly dry land.

Q. I did not so much care for the reason why, as for the facts themselves. Now, perhaps I can simplify and abbreviate by stating my purpose. I want to get the boundaries of the general region where the creataceous formations exist here in the West and where the carboniferous exists, so as to get clearly in my mind the line of your testimony, merely the geographical and geological facts is all I care for, and not for any reasons why.

A. Well, if I recollect your question, Judge Birch—did you ask me how far West the carboniferous period extended, the rocks of the carboniferous period?

1135 Q. Well, where the one lets off and the other begins.

A. Well, the presumption is that wherever you find the cretaceous, your carboniferous will be underlying, being the earlier geological period. I don't know how to more properly answer your question. In other words, here we are very close to the line of the territory where, if you reach down beneath us here, if you sink down deep enough, you will get to the carboniferous formation, so that when you ask me to say where the carboniferous formation begins and where it terminates, of course I can't tell you.

Q. That is just exactly what I wanted to make appear upon the record, because I thought it might be inferable from your testimony in chief that certain geographical lines in the country, certain geographical locations, possibly extending west of the Missouri River or even to this side, were not common to this part of the country, that all the intermountain Rocky Mountain coal formations were creataceous and not carboniferous at all, that therefore the doctrines of Mr. Leslie in his Manual and the general experience of geologists and coal men would only apply in certain limited localities of the country in geographical lines.

A. Well, I will state, in a general way, that west of the 6th Standard parallel, the carboniferous measures cannot be considered to produce coal, and in fact, I know of no coal being worked west of that parallel belonging to the carboniferous period in the United States. That is a very broad answer, I think.

Q. Because they are too low down under the surface?

A. No, because they do not presumably exist. We have exposures and ample exposures of the entire carboniferous

1136 measures, up and down, north and south through this area that I have defined, and the carboniferous measures in the Rocky Mountain district described consist of limestone which were formed of necessity at the bottom of the deep sea, under conditions which would preclude the deposition of coal.

Q. You heard the testimony of Mr. Forrester yesterday wherein he stated that there were large mines of anthracite coal here in the Rocky Mountains, and named their locality

A. Yes, I distinctly heard that.

Q. Well, that is good. They are in the cretaceous formation? A. Yes.

Q. And not in the carboniferous formation at all?

A. No, sir.

Q. That is your idea?

A. Yes, sir; that is also the idea of the United States Geological Survey.

Q. What figure in this case does this cretaceous formation cut?

A. Merely as the name of the coal deposits, that is all.

Q. Merely the sort of rock that surrounds them?

A. Merely as the floors or surroundings upon which the coal deposits took place.

Q. Now, you say, as I understand you, that coal, wherever it is found in these Western Rocky Mountains states and territories and coal formations exists under decidedly different conditions from those, East, do you? A. Yes, they do.

Q. They are more irregular in their character, the beds are; more uncertain than they are East?

1137 A. They are.

Q. Now, is it not a fact that in large portions of the territory east of the Rocky Mountains, as in Kansas, Missouri, Arkansas, to whatever extent coal can be found there, Indiana, Iowa and Illinois, immense beds of coal are found without and so called outcrop at all, but have simply been discovered without this outcrop to guide the accidental or intentional discoverer?

A. Let me see; that question is so long that I have forgotten it.

Q. (Question read.)

A. Why, I should say that the statement—I will answer that yes, with the qualification that the coals do outcrop at places.

Q. In other words, where there is little streams crossing to expose them or gullys or something or other of that kind, they sometimes do become apparent?

A. I am not particularly conversant with Kansas, Arkansas and the Missouri fields. I have read the Government publications upon them, and I know that the deposition in Missouri is peculiarly pockety and that sort of thing, but I am not conversant with that particular portion of the territory.

Q. Now, do I understand that you say that that sort of condition could not occur in this cretaceous formation here in the West, in the Rocky Mountain region?

A. Well, I will merely state—

Q. Now, be careful to answer my question.

A. Yes. I will merely state the results of my observation in all these coal fields and developed mines has been that the regularity, say like the reputed regularity in Illinois, does

1138 not exist in the cretaceous fields of the West.

Q. No, but perhaps you do not understand; you seem to get wide of my question. I asked you if the coal deposits

cannot be found here in the West in this region where there are no apparent outcroppings?

A. Well, mining in any sense of the word is not an exact science.

Q. Please, I beg of you, to answer my question directly if you can. I do not like extended dissertations in answer to my question.

A. I did not intend it that way, but it is a pretty hard question to answer. I should say, roughly, for instance, right here, supposing you were to sink right here, I should not expect to find, within reach in a commercial way, a coal deposit underlying, say right here. Is that the intention of your question?

Q. Approximately; yes; in a sense.

A. Well,—but there may be areas of undiscovered coal, and are undoubtedly areas of unknown coal all over the world, not only here, but everywhere. I am willing to grant that.

Q. I am afraid you are getting too long and will take up too much time, and I will try to keep close to the line myself, if you will, and I aim to be fair.

A. I shall endeavor to answer your questions.

Q. I want to be fair and reasonable in interrogating you, and if you will try and guard against too extensive answers to questions, I will be very glad. Now, assuming that it is the law of all territory in the mountain West, of a rough, broken and mountainous character within reasonable proxmity to known mines, is in law mineral land, would you say, for instance, that within a degree of two or three miles, where
1139 land is of the same general character as that upon which coal mines have been found, that they are essentially non-mineral in character, assuming that the character of the land is that it is rough, broken, mountainous—

Mr. Evans: Objected to as not proper cross-examination, and the question does not call for the expressions of an opinion upon the facts from the witness, and is intermingled to such an extent with legal assumption that it does not call for an opinion upon facts or for a statement of facts from the witness.

The Master: Answer the question.

A. I will try to answer the question. I will have to have these long, wandering questions re-read to me so that I can grasp them. I want to answer fairly, but I am unable to do so; I cannot follow you.

Q. There is no use in saying over and over again "I can't follow you." Let the reporter read the question. (Question read.)

A. I should say that conditions might exist where the land would be considered mineral land within the lines of the question.

Q. Within the limits, you mean?

A. Yes, within the limits of the question.

Q. That it might be considered mineral land?

A. Yes, sir.

Q. Now, if I understand you correctly, there is a difference between the coal measures of the East—we will say east of the Mississippi River—and those here in the Rocky Mountain states, and that here in the West it is peculiarly true
1140 that the geologist is not a prophet of what is in the ground or what will be found in the ground, but rather a mere guide; I will change that to geologist and practical miner. Is my question plain?

A. Why, the geologist and practical miner part of it, is certainly.

Q. He is a mere guide. You assume in these conditions which exist here that he is a mere guide. Now, you assume that he can in no sense foresee, that is, forstall, in the absence of actual discovery, approximately what may be found under the surface of the earth, unless there are outcroppings, and even then he cannot do so with any degree of certainty or satisfaction. Now, is that what you intended by your testimony in chief?

A. I will say yes, and further that of course all matters of that kind must be governed either with the miner or the geologist by the state of facts as disclosed by the surface exposures, where otherwise, for instance, the geologist—

Q. You have answered the question, I assume?

Mr. Evans: Well, you cannot assume that.

Mr. Birch: Well, I assume it now. I am running this examination.

Mr. Kelley: No, you are not running it by a long way.

Mr. Birch: I am running this examination and I cannot have the witness interfered with and directed when I am examining him, by anybody but the Master.

1141 Mr. Evans: If the Court please, I did not aim to direct the witness at all, but he apparently had not finished his answer, and he is the one to determine whether he has finished his answer or not. Counsel cannot assume it, and I cannot.

The Master: Certainly, no one has a right to interfere with the examination, and I did not understand that you attempted to do so. But the witness can answer the question as directly as possible and as briefly as he can.

Mr. Birch: If this examination is not conducted along that line, it is utterly useless for me to cross-examine the witness for that reason.

The Master: Go ahead with your examination.

Mr. Birch: I want to state my reason, unless you command me to silence.

The Master: Oh, no.

Mr. Birch: That when I am on a line of examination that I think is important, to elicit the truth, the witness can shift the issue if he does not confine himself directly to what I ask him. I do not always insist on yes or no.

Q. Now, Witness—

1142 Mr. Birch: Read the answer.

(Answer read by reporter as follows: "I will say yes—")

Mr. Birch: Now, that is all I wanted, "Yes." He can explain and you can call it out on redirect examination.

Mr. Evans: The Witness is entitled to give a full answer. He is not required to give an answer that will leave inferences which will be unfair to him.

By Mr. Evans:

Q. Mr. Hopkins, had you finished your answer to the question?

A. This discussion has been carried to such an extent that I have entirely forgotten.

The Master: I think the better way will be to have the Judge go ahead with his examination and we will try and give the witness a chance to explain, but the explanation should be along the lines and germain to the question and as short as possible.

Mr. Evans:: Certainly, but I object to counsel judging for the witness whether the answer is finished or not, and interrupting him.

The Master: Well, you want the explanations.

Mr. Birch: It is impossible for me to conduct this cross-examination—

1143 Mr. Kelley: Then, you can withdraw.

Mr. Birch: Very well, I shall be obliged to withdraw and appeal to the Court.

Mr. Kelley: We are willing to go up to the Court on this matter any time. If any Court will rule that you can stop a

witness in the middle of an answer and say 'I have got all I want' it will be something so novel in jurisprudence that it will be an interesting surprise.

Mr. Birch: I am not inclined to enter into long discussion with you, and I have heretofore declined to do it. I think I ought to know as well as you; if I do not, it is my fault.

The Master: Go ahead with your examination, Judge Birch.

By Mr: Birch:

Q. Now, Mr. Hopkins, is there anything peculiar about the formation here in the West, this cretaceous formation as you term it, which renders it impossible or rather, less probable that a man can foretell or determine from geological experience, geological knowledge and mining or mineral experience, than would be the case in any other coal district of the country that you have had either geological experience with or geological knowledge of or experience with as a miner?

1144 A. Yes, sir; there is a larger percentage of chance in in the cretaceous coal deposits than there is in the carboniferous.

Q. That is satisfactory. Does that not act both ways; in other words, would not it be this way, that there might be coal underlying land where you might not ordinarily under other conditions than those which obtain here, expect to find it, while you might not find it where, under other conditions, you would expect to find it; in other words, does not that certainly operate under such circumstances as well one way as the other?

A. I am frank to admit that the element of chance enters largely into all mining operations, and into coal as well as other mining operations; I will admit that.

Q. Surely you would, but it is the distinction between this territory and others in that respect that I am calling for.

A. Well, Judge Birch, if you will allow me I will say this: now, you must be controlled in these matters by the absolute evidence which you have. Now, for instance, we know that in the Pennsylvania coal districts—and I will say that Pennsylvania produces fifty percent. of the bituminous coal mined in the United States—

Q. I understand that.

A. —now, there are half of the mines of the United States right there. Now, that is a large percentage; that is sufficient to base an opinion on. The experience there and the actual mines themselves are the demonstration of the facts. You come West into this Western territory and you meet a different condition as to depositions in the actual mines devel-

oped, which are the only evidence, and again there you have the only possible evidence upon which you can base a statement or an answer to your question?

1145 Q. Yes.

A. And comparing the two, I say that the development in the West in these cretaceous coals does show a vastly greater irregularity of depositions than they show in the carboniferous deposits of Pennsylvania. I do say that.

Q. Precisely; that is where I want to get, a basis from which you and I can comment in this examination.

A. Yes, sir.

Q. Now, I will put the question once more to you. Here are lands in proximity to known coal mines; the Diamondville coal mines are known coal mines, aren't they?

A. Oh, yes, there is no question about that.

Q. Now, there are lands within reasonable proximity to those known coal mines, involved in this suit??

A. Yes, sir.

Q. Now, Mr. Hopkins, you testified that in this western region of the cretaceous formation the elements of uncertainty as to the influence of those known coal mines in ascertaining territory apart from them, distinctly is greater than it would be under similar circumstances in Pennsylvania?

A. No, I dont claim that.

Q. No, I mean in ascertaining whether there would be mines within reasonable—whether you would expect to find mines—

A. Well, may I ask you, Judge Birch, whether the results as shown by the developed mines along that outcrop—do they demonstrate the general inequalities of this Western field or not?

Q. No, I dont mean that at all.

A. I fail to grasp, then, what the question is exactly. These known mines, it must be apparent to any man—we have gone through several days of testimony here, stating

1146 as to what they showed and what they developed.

Q. Surely; that is all understood. We need not take up time to repeat that too often. I will try and guide you to what I want to know, and if you cannot answer it, it is all right. Let us keep right at the point at issue. You state that the elements of irregularity and uncertainty is greater in the West than the Eastern fields which you describe as within your knowledge? A. Yes, sir.

Q. Now, we understand ourselves there, dont we. We cannot get away from that landmark. Let us go to the next. Here are three or four—three by name, in fact, four by name, but three, in reality, coal mines developed? A. Yes, sir.

Q. Productive coal mines belonging to the defendant company. We understand that, dont we? A. Yes, sir.

Q. Now, is it not true that that element of uncertainty may resolve itself just as much in favor of coal land or coal underlying land within reasonable proximity to them, even against the evidence of pinching out or wants or anything of that kind in close proximity to those coal lands, as it resolves itself against there being coal there in these outlying lands; in other words, it is a practical application of what is sauce for the goose is sauce for the gander, isn't it?

A. Oh, certainly.

Q. Do you understand my question?

A. Certainly that is true, Judge Birch. I would say that the element [os] uncertainty enters into all mining operations, and the uncertainty resolves itself into, do you get a mine or do you not get one.

1147

Q. Now, you would call that outcrop traversed region throughout there a coal region, wouldn't you?

A. I should call that a coal horizon at least, and, yes, I will say a coal region.

Q. A coal formation?

A. A coal formation, yes, unquestionably.

Q. Now, two miles is within a reasonable degree of proximity of the apex or outcropping mines of which we have a tracing here on this map, No. 280?

A. Not under the existing conditions; that is, if by that you mean two miles from a reasonable limit to the dip of the outcrop there; in that case I should say no.

Q. That is not, in your opinion, within reasonable proximity?

A. It is not in my opinion, based on the absolute developments of the known mines in proximity to the land that you are directing my attention to.

Q. Then, in your opinion, Witness, the presence of the known coal mines along that outcrop, ten in number in a distance of some eighteen or nineteen miles, that are opened and have operated for a number of years and have produced many millions of tons of coal, would not have any influence upon lands lying even two miles from them as possible coal lands, taking into account the fact that you state, that coal lands are irregular and cannot be foretold in advance?

A. Well, I make this statement, Judge Birch, which I have already testified to just a while ago, as a matter of fact, that I do not consider that land containing workable, merchantable coal at the general distance from the crop that these lands

are situated, would be considered coal lands in any
1148 sense of the word.

Q. That opens an entirely different question. I understand your position and I am satisfied with your answer. I will not go on now to ask you further questions about that. There have been advancements made from time to time within your experience in the matters of coal mining, have there not, improvements in machinery and methods; have there been advancements since your time in coal mining?

A. Practically none.

Q. They have not retogressed?

A. Well, they have not progressed, either. The features governing the mining of coal—I will say that we are mining coal today in the United States in about the same way they were a hundred years ago in England.

Q. Would you not say that the methods of coal mining and the machinery and devices used for ventilating and all that sort of thing are fixed and unchangeable like the laws of the Medes and Persians?

A. Oh, no, nothing is fixed in this world, except death and taxes, as they say.

Q. Now, then, what might be impracticable from a coal level—that is, from the coal outcrop, what I, in my ignorance, would call mining from a tunnel instead of a shaft—I suppose any one would understand that distinction?

A. Yes.

Q. Your position is that because the conditions are unfavorable to mining by tunnel, that is, by drifts—

A. Incline is the word.

Q. —mining by incline would not be possible without
1149 going to too great a depth under these sections in question or these lands here, and that the present method of sinking shafts would be prohibited because of the expense of the same—you would say from that that these are not coal lands, even for a diamond drill with a double core or double pipe or whatever you would call it?

A. A double core barrel.

Q. A double core barrel would bring up a core showing a reasonable depth, say five or ten feet, or anything like that, and otherwise workable depth or thickness of the seam of coal underneath the surface there, you would not call them coal lands because you would say that they fail for want of being workable; is that the idea?

A. Yes, in a limited way, but the question of area, of course, enters into it. There are so many things that enter into the forming of an opinion such as I have expressed that I cannot properly ignore in the question all those features without placing myself in a false position.

Q. Now, practically I can follow you in that. But you understand, not in any invidious sense, but for the purpose of making myself clear— A. Oh, yes.

Q. Assuming that the law of the land is that one man cannot acquire honestly and properly from the United States more than one hundred and sixty acres; that an association of four or more persons cannot obtain more than three hundred and twenty acres, unless they might do five thousand dollars worth of development, in which case they can obtain six hundred and forty acres of land—assuming that to be the fact, do you allow that to make any difference in your definition of what is
1150 workable coal land? A. Why, I certainly do.

Q. That is what I want to know. I want to know that because— Then you would say that one hundred and sixty acres of land of, for instance, section 18, even though demonstrated by a diamond drill to have a proper thickness, a practical thickness of coal seam to warrant mining if it was part of a large tract, that is, a considerable tract—that could be reached by the incline process by applying to a different party or person who owned the front of the incline, would not be workable coal land, would you?

A. If you will go on, now Judge, and add to that, under the general conditions of the nearest mine as to roof and other conditions, then that is a fair and square question that I can answer directly, and if that is included in your question I will answer that.

Q. Now, wait; I understand you, I think; see if I do. Given that a diamond drill with a double core barrel apparatus should demonstrate to your satisfaction—

A. By a series of holes—

Q. —by a series of openings on section 18, township 20 north, 116 west, that there was what would otherwise be a vein of good coal, workable in thickness if it lay out where it could be reached by an incline, but that there was no way of reaching it by an incline—a hundred and sixty acres of it by incline because of the adverse ownership of the incline or because of such obstacles and difficulties in the roof of the tunnel or incline or any obstacles which would prevent its being reached by an incline, would you say that that hundred and sixty acres was not coal land, and because it could not be practically worked?

1151 A. I should say that it was not commercially valuable coal land, yes, sir.

Q. Now, in my opinion, in that, you have raised the whole question in a proper shape to go to the United States Supreme Court in this case. A. Yes, sir.

Q. And I wanted to draw it out fairly and plainly, without any possibility of doubt? A. Yes, I understand.

Q. Therefore it is to some extent that you have given your opinion that these red marked sections on complainant's exhibit No. 280—in part, you have said that, not fully for that reason—are not coal lands. A. That would be my statement, sir.

Q. Now, then, abstractly speaking—I am speaking now abstractly with all these conditions out of the way,—would you be prepared to swear that these same sections involved and which were under consideration in the last question, were essentially non-coal lands; I don't mean essentially non-workable coal, but non-coal lands?

A. I would. I have qualified, Judge Birch, as a practical man and not as a theorist. With that understanding I will answer the question in this way. We cannot ignore these conditions, because the dip of these measures here is a very prime factor which must be included. If you will take that away, if you will put that dip in the case, because that is material—now, there might be cases where the measures are practically level, where one could not be so positive as to the non-coal character within that distance from the coal outcrop; but where you have this steep dip and you know that always within a
1152 certain distance from their outcrops they are governed practically—their non-coal character is governed practically by the extent of that dip. Now, you would understand that easily by my exaggerating the proposition and placing that dip up here at Diamondville at, say, forty-five degrees instead of twenty; then, you would not contend, and no one would practically contend that this land under section 18 was coal land; no man on the face of the earth would, even a theorist.

Q. Now, listen; I understand how the nearer we get to China the harder it is to get coal out, because it would not require a very brainy man to comprehend that; therefore I do not see that argument.

A. Well, that is a prime factor that enters into this very question.

Q. Let us see whether it is or not. You have testified that this is a coal formation?

A. Yes, sir.

Q. You have said that the coal in these formations is irregular, that the pockets or beds of coal are exceedingly irregular.

A. Taken as a whole, you might say they are adventitious.

Q. Now you see it and now you don't, as you go over the surface of the earth? A. Yes, sir.

Q. Suppose your dip leads to an angle of greater than forty-five, and carries you five or ten thousand feet down as you would trace these from this outcrop? A. Yes.

Q. But suppose a new vein of coal sets in here which does not outcrop at all; that is possible?

1153 A. Yes, oh, entirely so.

Q. Wouldn't it be more likely to occur in a coal formation; that is, wouldn't you more expect it if you found it in proximity to this? A. It certainly would be.

Q. That goes to the definition that I stated to you in the beginning, that land, rough, broken and mountainous in character, within reasonable proximity to known mines, may be mineral in character?

A. In answering that question of yours before, that long question, I had in mind, the lack of qualification of the direction and dip and that sort of thing of the measures. I answered that other question qualifiedly for the reason I understand that it is not claimed that the land to the east of this outcrop is mineral land.

Q. Well, that I don't know; I suppose that is so. It may be, though, notwithstanding.

A. Oh, this all may be mineral land; there is no question about that.

Q. Now, I will ask you this question: taking into account what I have stated to you and what you have already testified to, outside of the question of workable coal, your idea of what is workable, could you testify that these brick marked lands involved in this suit are essentially non-coal lands?

A. Eliminating the commercial feature entirely?

Q. Yes, absolutely eliminating that.

A. And our present knowledge regarding the land and everything else; just an abstract proposition as to whether the coal might underlie that land; is that the idea?

Q. As to whether they are essentially coal bearing

1154 lands or not.

A. I will answer that question in the best way I can by saying that undoubtedly the coal bearing horizon does extend under that land.

Q. That is what I want to get at.

A. I would have answered that originally if you had asked me that.

Q. Well, you know it is undoubtedly due to my ignorance rather than to—it is because I am a layman.

A. I do not attempt to criticise, you, Judge Birch, but I would have been glad to answer that at any time.

Q. All I want is the truth, and I am sure you want to give it if you understand it. A. Yes, I do.

Q. I felt that way, and that is why I am trying to get at these matters. I feel as if you intended to be truthful and fair. Now, can you tell when that railroad was built?

A. The Wyoming & Western?

Q. The branch railroad from the Oregon Short Line down through this region.

A. In the winter and spring of 1900-01.

Q. You were then in the employ of the Union Pacific Coal Company? A. In 1901, yes, sir.

Q. The latter part of that period?

A. Yes, sir. The road was not completed until after I went there.

Q. Can you tell me how much coal has been produced approximately in the various years out of the Kemmerer mines from that time, 1900, down to the present per annum or per day? A. You say the Kemmerer mines?

1155 [A.] Yes, the Kemmerer, from 1900 down to the present time?

A. It is my recollection that in 1900 and earlier—

Mr. Kelley: We at this time wish to note a formal objection to this line of evidence as incompetent, irrelevant and immaterial and not proper cross-examination.

Mr. Birch: Very well. We only put those in for fun, Mr. Hopkins; just go right ahead and answer the question.

A. It is my recollection that in 1900 and a portion of 1901 that the capacity of the Kemmerer mines at that time, was about eighteen hundred to two thousand tons a day; but I wish to complete my answer by saying that at that time I believe they were supplying most of the fuel that they were producing to the Oregon Short Line Railroad Company and the O. R. & N. Railroad Company. Their contract expired during the fall or in the early fall of 1901, the Kemmerer Coal Company's contract did, and they had a dispute in the renewal as to price or something of that kind, and the contracts were taken by the Union Pacific Coal Company, and the coal was supplied from the mines at Cumberland.

Q. May be we can make this much shorter—have you at hand or could you briefly—say during the noon intermission—obtain for me the statistics of the productions of those mines as reported, the Kemmerer mines, from 1900 down to as long as there are statistics; could you get me those?

A. Down to last year?

Q. Yes.

1156 A. Why, I presume those would be available if I were at Salt Lake in my office where I have The Mineral Resources. However, I will endeavor to ascertain.

Q. Never mind, if you cannot get them. Now, take the Diamondville mines. Can you tell me the capacity of those three mines, and in fact, I include the No. 4 of course, during that time?

A. It would be a matter of pure estimate. I should say from the extent of the work in those mines, that their capacity

must have been in the neighborhood of three thousand—twenty-five hundred to three thousand tons a day during the past. I should say that their prospective tonnage would be very much decreased.

Q. Now, what has been the capacity of the Cumberland?

A. They were set out as mines to produce four thousand tons a day between them, those two mines. They have, I believe, fairly approximated the tonage that they were set out for.

Q. Now, what is the limit longitudinally between the southernmost mines of the Union Pacific and the northernmost mine of the Kemmerer, in miles, approximately?

A. Oh, twenty miles would be a fair statement.

Q. The length of this branch road being approximately nineteen miles?

A. I have forgotten what the testimony is on that; I am giving you the approximate distance along the outcrop.

Q. You have not known of these mines being closed down for any considerable period, temporarily on account of strikes, etc. which interferes occasionally, have you?

A. Yes, I have known of very material shut-downs.

Q. Which one?

1157 A. In all the mines, or practically all; I will qualify that by saying not all, but through squeezings and mine fires, No. 2 mine in Cumberland has been shut down for over a year.

Q. Could you give me—I do not attempt to put these questions expecting an accurate answer—but could you give me, say the proportionate time that probably these mines have run from 1900 to 1906 or 1907 from your general obseration of them; the proportion. Was it two-thirds or one-half or four-fifths or about what was it; just give me your best judgment in regard to the proportion of time they have been running and the proportion that they have been shut down.

Mr. Kelley: I shall not object to this if the witness knows of his knowledge the fact that he is testifying to with reference to the operation of these mines; but if it is merely hearsay with him, we object to it, of course, on the ground that it is hearsay.

Mr. Birch: Well, I dont want anything very definite about it or to compel us to get the statistics from the different sources. I want save doing that, but if counsel strenuously objects, I concede that he is correct as a matter of law, if you press your objection?

Mr. Kelley: Certainly I press it. I have got the rest of my life to put in on this case, if necessary.

Q. If you dont know of your own knowledge, Witness, you need not answer.

A. Oh, I certainly could not know of my own knowl-
1158 edge..

Q. Now, you have outlined a great many difficulties in mining in the mines which you examined in this case in your direct examination. I will ask you if there were here in the West and considerably in mining all over the world, similar difficulties encountered?

A. The difficulties to which you refer according to my testimony, relate, chiefly, to the character of the seam of coal or bed of coal, and I will say that ordinarily mines are not operated which have or are on a coal horizon which contains so much of foreign matter in the coal. This banded condition in the coal, scattered through the bed the way it appears to be here in these particular mines and along this crop is usually not worked in other coal fields. I am prepared to state that that character of coal bed, commonly the operation of it is not attempted by anybody.

Q. You want to be understood, then, as saying that where several shale, bone, clay or shale and saandstone, etc., intervene between the veins or seams of coal, the coal mines are not ordinarily worked?

A. The question as put is not in position so that I can answer it. If you will qualify that by saying in place of the word intervening, occuring in frequent bands scattered through the coal, I will say they are not worked.

Q. I will amend it that way.

A. All right, sir, I will say that they are not generally worked.

Q. Is that true of nearly all western coal mines, that the coal is not found in one unbroken seam?

A. It is true that in all coal mines apparently in the West
here you eventually reach a pinched place where the coal
1159 is too low to work, where these lenses or strata of dirt come in and cut off your work in that particular portion of the mine, but operation is rarely conducted in a condition where, level after level, as shown in some cases in these mines, reach the same class of ground where the coal is unworkable, and it is rarely that anybody in a mining way prosecutes the prospecting work that these people have done in these mines themselves. The mining prospecting that has been done in these mines of which we have spoken, that is, the Diamondville mines, represents an enormous outlay of money, and I should say that as a rule, the prospecting done in operating mines rarely approaches in any degree, the amount of money that has been expended in these mines.

Q. Now, I wanted to interrupt you and try and stop you—I know you want to be fair? A. I do.

Q. And I trust I do. But for my purpose it is unnecessary to go to the length that you have.

A. Dont you want the truth about this matter?

Q. I certainly do.

A. I am giving it to you in these abstract questions.

Q. But I want it in my own way of getting at it, leaving it to you to be afterwards explained if you wish. Now, isn't this condition that you describe—not as to the extent of the attempt at discovery or prospecting as you term it—true of almost every mine in Wyoming, Utah and Colorado?

A. It is not—

Q. Well, that is enough of that; you say it is not. Dont you find soft shale—

1160 Mr. Evans: Had you finished your answer, Mr. Hopkins?

The Witness: No, I had not.

Mr. Evans: Then finish it.

The Witness: I desire to say the reason that I say it is not in both cases and in a great many cases is that it is possible to determine, even from the outcrop, the territory which you are driving into with your mines.

By Mr. Birch:

Q. That has been said over and over again.

A. I understand, but I want to tell you.

Q. Taking up time and time.

A. No, not taking up time. You have a one sided outcrop here. I want to say what I am saying is that in a great many cases you get more than one side; you may get two sides and in some cases three sides, and in some cases all sides, and furthermore—

Mr. Birch: Mr. Master, it is impossible for me to proceed with the examination upon lines like this. Every time I ask a question I must receive in reply a lengthy argument. I cannot proceed intelligently in this case. Now, I must have some instructions to the witness; I must have some direction or I am unable to proceed with this case intelligently.

1161 The Master: Now, my understanding is this that where an answer is like that, he would have a right to explain in a reasonable length of time, but you cannot take too much time.

The Witness: If I had not been interrupted it would have been finished. But I want to state that in qualifying that answer the conditions are not the same, that in other cases you may get different and more outcrops, and even diamond drill holes at convenient depth to determine that.

The Master: You have a right to explain your answers as you go along, and you will have a further opportunity on redirect examination. I would like to have you make your explanations as short as you can, and not throw the examination off the track, so that Judge Birch can follow his line of examination.

The Witness: Your Honor, I ask to be protected from this interruption in my answers to questions. I must be protected. A man cannot answer, and the stenographers cannot get my answer with Judge Birch talking at the same time.

The Master: There have been interruptions on both sides. You must wait until Judge Birch completes his question and then he will keep quiet until you complete your answer, but I want you to make them just as short as you can, because this is taking a great deal of time and we are anxious to get through. I want you to have an opportunity to answer
1162 the questions fairly and I want to treat you fairly and counsel also, but answer just as nearly straight to the point as you can, and if you do not understand the questions, ask to have them made so that you can.

The Witness: I have been trying to do so, but the questions have been ambiguous.

Mr. Evans: We are all anxious to get through as quickly as we can, but we are not going to cut the witness short or do anything unfair to the witness to save time. Now, you take any of Judge Birch's questions and you will see that in almost every instance there are three or four questions in one, and the witness, when he gets them puzzled out so that he can understand them, then comes the interruption that Judge Birch cannot go on with the examination because he is not getting direct answers. The witness should make his explanation short, but he is entitled to do that without being broken in upon.

The Master: Have you finished your explanation, Mr. Hopkins?

The Witness: Yes, sir.

The Master: Then, go on with your examination, Judge Birch.

Q. Isn't it generally true that soft shale is found in nearly every mine? A. No, sir.

Q. Isn't it true that all mining that is done by every
1163 process, the general process as far as getting coal out from the incline process, as far as getting it out latterly is concerned—that either the roof must be propped up or that columns must be left of coal; there must be some protection from falling down?

A. There is in this class of mining; in the [in the] long wall system of mining there is not, but there is no such mining as far as I know in Wyoming, and it would not be practical under the conditions, so that it is true that props are used in almost all mines and that they are necessary, and that pillars of coal are left.

Q. That is true? A. Yes, sir.

Q. Isn't it true that these apparent upheavals that you speak of—I have forgotten the term applied to them—are true in almost every mine? A. No, sir.

Q. That is not true? A. No, sir.

Q. Isn't it true in a majority of the mines? A. No.

Q. What proportion of the mines in Wyoming have you found it true in?

A. That was true of this Alma field here and it is true of the Cumberland-Kemmerer field in places.

Q. Is it not true of the Union Pacific Coal Company's mines to an extent? A. You mean at Cumberland?

Q. Yes.

A. Yes; I stated that in the Cumberland-Kemmerer district that it was,—

1164 Q. Would be true?

A. Well, not generally true, but to a certain extent true. This heaving that I speak of, Judge, is caused by a soft clay, and under clay, which, as you leave a pillar to support—

Q. Yes, you defined it; dont go over it again.

A. Well, I am saying that where that occurs you get the heaving and where it does not occur you dont get it.

Q. Yes, I understand that, but I did not want it again. What I want to know now is whether it is not found in other mines; isn't it found in the Carbon County district—well, the eastern Carbon County?

A. Well, in a limited way. All the under clay there is not soft, and the presence—

Q. It is not so distinctly true of that as of this region here. Now, isn't it true that you must at some time reach a limit or band, whatever you call it, the concluding, the cessation of the coal veins in every mine; you do not expect mines to go

indefinitely, do you, the veins to continue along indefinitely in any place? A. Why, they dont.

Q. You would not, even in Pennsylvania, expect that seams of coal would reach out indefinitely; there must be a period somewhere.

A. They may reach out to the edge of the deposit. I will say, however, that the general safety of the horizon there permits them to be mined long distances from the outcrop, presenting an entirely different feature from the situation here.

Q. Yes. You mean when you say here, in the Rocky
1165 Mountain territory or in this particular territory?

A. I mean in this particular territory.

Q. Now, in other intermountain territories such as you have read a list of this morning on mines which started and ceased, hasn't it been true of those, the same condition; you would expexct everywhere to be manifested as to the extent, quality, thickness, workability and all that?

A. The very character of the deposition makes that; I testified to it a number of times today; it is a mere matter of repetition. I have said that the occurences of coal in thes cretaceous measures is of such a character that it is very uncertain and that as a rule, the valuable deposits assume a rudely, circular outline; some of them are smaller and some larger with apparently blank and unworkable spaces between.

Q. You have stated that, in your opinion, it had something to do with the sort of lakes or ponds deposited in early days, something of that nature which had flowed in and when they reached the limit of their capacity they ended?

A. No, I would not be prepared to say—

Q. Perhaps it was Mr. Forrester who stated that.

A. No, I would not be prepared to say that the coal was all formed in situ, or in place where the plant life grew, or that a portion of it had not been moved from where it was originally grown, into lagoons or ponds.

Q. I dont want to go into that. I think it was Mr. Forrester who went into that.

A. Yes, sir.

Q. Now, where it is true that it might leave off in that way, it also might begin with new ones in the same way?

A. There is no question about that.

1166 Q. It is a little more likely to be so where there is once a coal formation, than where there has been none found.

A. Certainly; there is no question about that.

Q. In other words, on the plains of Wyoming long stretches of levels with no mountains or hills or anything of that kind, you would hardly expect to find, by just digging down, a coal deposit there; you would hardly expect to find that, or at least, you would not expect it as well as you would if you were in close proximity, a mile or two miles or three miles of a line of coal formation.

A. Well, I would make no distinction as to the outside features of the ground; it may be mountains or it may be plains; the outside physical features cut absolutely no figure in that way. You have been talking about the coal field as a roughly mountainous, rocky country, and now you get down to a plain. I place them all in the same category in answer to your questions I do not consider the surface of the ground in an abstract way, whether it is mountain or plain. Now, you have taken me into the plains. Would you please read the question? I cannot understand it.

The Master: Cannot you answer that yes or no and then give your reasons why? Not necessarily yes or no, but make a direct answer.

The Witness: Well, but I cant; it depends on the direction this plain is from the line of the coal formation, or whether the coal formation underlies it or not; I cant answer the question.

Mr. Birch: I will waive the question.

1167 Q. Now, I understand from you, Mr. Hopkins, that this is peculiarly an unfortunate system of coal mines, do I? A. No, sir.

Q. That is, its surrounding features are worse than those which you generally find?

A. Well, there in the Diamondville mines that is certain. True, from the operation in the field, as far as the Cumberland mine went, outside of encountering this absolute want in the No. 2 mine, during my time there we did not have those dirt bands to contend with as much as they have in the Diamond mines today. The Diamond mines, themselves, at that time did not have these dirt bands to contend with that they have to contend with today, and I will say as a fair answer to your question that I do not believe that the Diamondville mines would have been opened and operated, particularly the No. 2 mine, if the people could have seen or known what they have encountered in those mines.

Q. Would this be true of the Kemmerer or Union Pacific operations? A. I should say it would.

Q. In other words, that region would not have been opened, in your opinion, at all had they known how bad it was?

A. Well, that is my impression; that is my honest impression. Disappointments have occurred in that district; there is no question about that.

Q. Then, notwithstanding the enormous output since they were first opened of coal from this formation embraced in this twenty miles northerly and southerly, your opinion is that it was not a good fortune that that was discovered as coal bearing, taking it in the aggregate; it was not a piece of
1168 good fortune that it was found to be coal bearing or that mines were ever opened?

A. No, sir. I believe, as a matter of profit that if one could positively get both sides of the proposition as it stands today, the investment and the expense against the sales, that you would find the other old mines practically ready to be abandoned in that district today—I don't suppose that the pick of those mines that are operating will be operating five years from today, and I should say that if you put the expense account against the actual money received from sales of coal, the absolute expense and the investment on the other side as against that, you will find the operators in red ink.

Q. Mr. Hopkins, then would you say that that territory in a broad sense was non-workable?

A. In a broad sense?

Q. I mean in a broad, commercial sense.

A. In a broad, commercial sense I would be prepared to say that that district as far as disclosed, is not a profitable district to mine coal in.

Q. Now, is not—would you go back and include it from the beginning, 'Has not been and is not'?

A. Well, yes, of course now, the profits from year to year, you might take any individual year and of course, you might make an earning, but if you take the life of these mines—of course, you cannot get quite the life now, but the life of these mines, their days are numbered and you can tell how long they are going to last, pretty well, that is, approximately, and with their early demise in sight, I should say and I do say that I do not believe the money that has been put into that district up to the present time is liable to be taken out.

Q. Now, then, wouldn't that be true of the list of coal
1169 mines in Wyoming which you read in evidence this morning? A. Yes, of the particular mines I read.

Q. Wouldn't it—

A. I did not read any of the present operating mines; I was reading the mines that had been started and abandoned.

Q. Now, you read into the record the history of the mining operations involved in the mines which you read?

A. Yes, sir.

Q. Would that be true of all of them or most of them?

A. Approximately so, yes, sir, if you take the total mines.

Q. Take the whole of them together and aggregate them, and would that be true?

A. Certainly that would be true.

Q. Isn't it true that many economists claim that, taking the aggregate of the mining that has been done west of the Missouri River in this country, that it has cost as much as ever came out of them, that is, of the produce; have you not known of this opinion and claim for years, and that it is held by economists?

A. I don't know that it has been a general claim. I have heard the statement made and I should say that a large percentage of the failures in coal mining that I am aware of have been caused by following on the plan that is proposed by your Geological Survey now, that is, of assuming that you had something that you did not have, and that is the basis of these failures.

Q. Let us not discuss them and their policies, because that is not your or my duty. I was asking you in the broad sense of the general coal mining and of other mining that has been done in the West, if you did not know it is claimed by economists that more money is expended in getting that out

1170 than the product amounts to?

A. Yes, extending to all mines, ore and others.

Q. Isn't it true that in the whole regions of the West it is claimed that much more has been expended in mines and mining than the money taken out of the mines and mining would amount to?

A. Yes. You are now referring to mining general, ore and coal and all?

Q. Yes. A. Yes, sir, I would say that.

Q. Would you say that the West is non-mineral on that account? A. No, sir, not on that account.

Q. Would you say that a region of that kind which has resulted that way is non-mineral on that account?

A. Why, no, I would say not.

Q. In other words, as long as people desire to take their chances and do take their chances in ventures of a mining character such as the Diamondville Company did there, you would not assume that it was non-mineral, while they obtained the mineral in question, it being coal here, yet they did not make it profitable, would you?

A. Oh, no; I should call the area worked by those mines, particularly where the coal shows good, I should call that coal land, certainly.

Whereupon further hearing was adjourned until 1-30 P. M. of this day.

1171 Thursday, April 23rd, 1908, 1-30 P. M.

Cross-examination of Mr. Hopkins, resumed:

By Mr. Birch:

Q. In the natural order of things, Mr. Hopkins, you would expect, would you not, that any mine of coal was limited and would ultimately be exhausted?

A. Yes, sir; I will say that the oldest mine that I know of in Wyoming is the No. 1 mine at Rock Springs, and that has been operating in a general way since about 1870 or 1871.

Q. It is then merely in the opening of the mines a question of when they will be exhausted?

A. Yes, what tonnage will be available from a given opening is the basis of the mine measurement.

Q. Then, generally speaking the value of the mine would depend on how long it held out to be workable, that is, produce?

A. At a profit.

Q. Held out production? A. At a profit, yes, sir.

Q. Now, that leads me exactly to the question that I want you to answer. Do you consider the term workable as used by you in your testimony as being practically synonymous or a synonym for commercially profitable working?

A. Yes, sir; yes, sir.

Q. Then, given a mine in this or any other field which would produce coal in considerable quantity, a fair vein of coal and was not unusually expensive or difficult of exploitation or production, and if there should be no market for that coal or in the event that your market for the coal was at such a low

1172 price that nothing could be made in mining, you would not consider that a workable mine, would you?

A. Now, read the question; I am slightly mixed up.

Q. I will repeat it.

A. No, you had better have it read first so I can so that I can catch on to it.

Q. Anyway so that it will suit you— (Question read.)

Q. If it would be easier for you I will withdraw the question? A. I wish you would.

Q. Well, I will try again. Suppose coal in a mine could be worked profitably at five dollars per ton, that there was a sufficient amount of coal and it could be mined sufficiently easily so that a fair profit could be secured in operating it at five dollars per ton— A. Is that cost or selling price?

Q. No, that is selling price of five dollars per ton, and the price should go down to two dollars and a half per ton, would you or would you not consider that mine a workable mine?

A. If that reduction in the selling price was not a purely temporary one, but was permanent, I should say that the mine would not be a commercial proposition.

Q. In other words, while the price remained at two dollars and a half per ton, the mine would not be workable, is that the idea—during that time while it remained at two dollars and a half per a ton, the mine would not be workable?

A. Yes, sir; the mine certainly would not be worked; that is a foregone conclusion.

Q. Would you consider, then, that it was not a workable mine?

1173 A. It would not be commercially workable, of course not.

Q. Well, commercially, you say, but I want to know what your idea about the term workable is, and that is why I ask the question.

A. That is the reason I am qualifying the answer to the question.

Q. Of course, then, because of saying that it would not be commercially workable, that is, that you would be losing in working it, but would it or would it not be under those circumstances at the time that the price remained at two dollars and a half, generally, a workable mine; in other words, does the workability depend upon profitable operation or some other factor?

A. Why, the workability depends on the profit to be made from marketing the product, as one element of workable coal.

Q. Would that be a necessary element?

A. Well, it would be a necessary element in the absolute working of a mine, but a mine, a bed of coal, might be workable and still not worked for the reason you have stated, that is, that the price received for the product was not as much as the cost of operation; on the other hand that is an element that would prevent the working of a mine, but is not the only element which enters into the workability.

Q. True. But I ask you now the question direct: are coal mines workable according to your definition or your idea of the proper definition of that term, when they are commercially profitably? A. No, sir.

Q. May be I put my question so that the answer does not clearly convey a definite answer. Which way do you mean it to be? A. No, sir.

1174 Q. Then, I will have to put the question again. Does a workable mine depend on the question whether a mine is workable at a profit or not? A. No, sir, not entirely.

Q. Well, is profit a necessary element in the question of workability?

A. It is a necessary element in the working of a mine, although there are mines worked that are not profitable. It has

been stated by you that the general reputation of mines is that the money spent in the mines of the West has not been taken out of them; still some of them are being worked; they are all being worked as far as that goes.

Q. I guess we have perhaps exhausted that part of the subject. Now, is it not true that all mining ventures, that is, the attempt to make money by mining, are more or less of a speculative character?

A. I will say that the element of speculation can be largely eliminated by proper precaution and the expenditure of some preliminary money; but there is no doubt that mining is, to a certain extent of a speculative character.

Q. Could not elements enter into any mining venture after the company has been entered upon, which would have a tendency—which would have the effect to render that unprofitable?

A. Why, that would have to occur after the operation started, or a fellow would never start it.

Q. No, I think that is hardly a complete answer. Read the question.

The Master: Can't you answer it yes or no and then explain your answer?

1175 The Witness: Why there is no other answer except that, because there is—I was just saying that mining operations are, to a certain extent, of a speculative character, and I do know that these occurrences that are referred to do occur in all kinds of mining.

Q. Well, I think that is a fair answer. Now, then, would the question as to whether a mine was being profitably mined or not fix the question as to whether it was mineral land?

A. No, because there is a vast difference in the management and buying of property. For instance, now, talking of these properties of the Diamond Coal & Coke Company at Diamondville, I consider that their management has been an excellent one, and had it not been for that excellent management I believe those mines would not be working today; that is my estimation of the question of management, which, I think, enters largely into the question of profitable or unprofitable mining. You must take all these things into consideration if you form an opinion on the profit making features of a mining operation.

Q. Very good. Now, suppose, Witness, that land, geologically speaking, promise excellent results both before entering upon the operation and afterwards, and the institution operating it did not wisely do the mining, that is, prosecute the mining of it, so that thereby it became, instead of a profitable venture, an unprofitable venture, would that determine

in any degree the character of the land as a mineral proposition, that is, the mineral value of the land?

A. I should say not. If one who had a fair knowledge of the methods of conducting mining operations, etc.—the value of a mine would be controlled more largely by the quantity of material of the kind that was being mined which could be
1176 produced and the actual cost of production in a fairly economic way. Extravagant, in other words, in the operation would it not make any further unworkable except to the then owner.

Q. Suppose, for instance, that the management of a mine was unfortunate by reason of the over generosity on the part of the manager in the matter of expenditure either for labor or machinery or in salaries of the leading officers, would the character of the lands, as mineral land, in anywise depend upon its being a profitable venture; the character of the land itself as coal land, workable coal land?

A. I should say not.

Q. Suppose there are manipulations in the stock of the company on the capitalization of a financial character now prevading the country; would the workability of the mine then, depend, in your opinion, upon a failure; suppose those factors to produce a failure; would it depend on the mine's workability or those conditions?

A. You mean the workability of it with reference to the material down in the mine?

Q. Yes.

A. No, sir, not a particle.

Q. Then, whether a mine is workable or not does not really depend on the character of the mine, itself, entirely?

A. It does not wholly depend on it, no, sir.

Q. I think that is all the questions I desire to ask of this witness.

1177 Redirect Examination

By Mr. Evans:

Q. Mr. Hopkins, on direct examination I asked you a number of questions and you gave testimony in answer to them regarding the land in controversy and the surrounding country along the horizon from Glencoe to the Cumberland mines, and you stated that there was not in that territory another place where another mine, in your opinion, could be opened; that the land had no value for coal purposes, in your opinion, and made other answers along that line. On cross-examination Judge Birch asked you about the bearing of the fact that this land was only sold in one hundred and sixty acre or three hundred and twenty acre tracts.

A. And six hundred and forty acre tracts.

Q. And in six hundred and forty acre tracts in case of sufficient development. Now, I wish to ask you, in order to make the record clear, if in arriving at and giving your opinion as to the non-mineral or non-coal value of this land, this situation of conditions as to whether it would be possible, in your opinion to locate another working mine there, its value for grazing purposes being greater than for mining purposes, in your opinion—as to whether in giving those answers you were influenced at all by the fact that the land was obtained or only obtainable in one hundred and sixty acres or three hundred and twenty acre or six hundred and forty acre tracts or did you take the whole country there as a whole, irrespective of who owned it?

A. Oh, I took the surface horizon only into consideration as to these lands. I did not consider at the time that I was answering these questions the question of the amount of land that could be acquired. I think, perhaps, counsel had
1178 in mind a question in which Judge Birch was seeking to find out whether an individual could afford to sink a shaft on one hundred and sixty acres, and I said no.

Q. If you assume that the ownership of all of the land from Glencoe south to the Cumberland, including the line of the outcrop, the lands in controversy, all of these lands, were in the one ownership, would your answers be the same as they were to me on direct examination as to the value of that land?

A. They would, as far as present disclosures warrant an opinion, and I will say further that the land has been fairly well prospected by drill holes and outcrop inclines and those pits.

Q. Judge Birch asked you upon cross-examination some questions regarding the banding of coal seams, that is, the occurring in coal seams of bands of shale and clay, etc., and other occurrences here and the frequency of their occurrence in the Diamondville mines as compared with others, and the effect of those. Mr. Hopkins, can you take your pencil, and, according to the union schedule that you have put in the record upon direct examination, adding the additional cost in the case of the occurrence of such bands of shale or rock in the coal vein or above it, and figure for me on the section that I will give you, what will be the increased cost?

A. I think I could, yes, sir.

Q. Will you do that?

A. Yes. What is the section?

Q. I will give you the section. This is section Z. on exhibit 18. I wish a concrete illustration of this point in the record. A. Z., exhibit 18.

1179 Q. The section I refer to shows a foot of hard, blocky shale roof exposed, and then three feet, three inches of soft, blue shale.

A. My answer to that would be, taking section Z., that under the agreement in court with the United Mine Workers of America, as to price, the miners' charge for mining a ton of coal under the section as given for Z. would be seventy-five cents a ton.

Q. How much of that would be caused directly and wholly by the occurrence of these bands or of the following roof and the bands of dirt in the coal? A. One-third of it.

Q. Twenty-five cents a ton?

A. Twenty-five cents would be added; the cost of mining per ton would be increased fifty per cent by the bands of dirt in that section.

Q. If it did not occur, you would pay your miners in the first instance for merely mining it, fifty cents a ton?

A. Yes, sir.

Q. And if it did occur you would have to pay them seventy-five cents? A. Yes, sir.

Q. Would you also have an increased cost in the handling of this rock and shale?

A. There would be some additional expense, particularly in the narrow workings.

Q. Would your coal be as clean?

A. No, sir; you would have, of course, the added trouble of having a coal that was not thoroughly merchantable, I should say.

1180 Recross Examination

By Mr. Birch:

Q. There is one matter that is not strictly recross examination if I am permitted—Suppose, for instance, Mr. Hopkins, that I had lands within reasonable reaching mining distance from one of these Diamondville mines, that they deemed likely to be desirable to use for that, and which I did not desire to sell, and they approached me to know upon what terms I should allow them to mine such portions of that as they wanted to take the coal out from, provided no specific sum per acre within given limits could be arrived at, but a tonnage value should be fixed; in other words, suppose what is ordinarily a royalty should be charged; has there ever been any such royalty known in this Western territory to your knowledge?

A. Well, not except in the close corporation way.

Q. Not buying at arm's length from a stranger; you mean corporations that are mutually interested; that is what you mean? A. Practically, yes, sir.

Q. But you don't know of any instances of companies who dealt at arm's length, that is, dealt with persons not interested with them in any manner; you don't know of any such instances as that?

A. In the Rocky Mountains, you mean?

Q. Yes, in this Western territory.

A. Well, except in a very small way. Occasionally leases have been made. I operated, myself, at Franceville under lease at so much per ton, but I could not tell you. You see, the value of such a lease would be governed by the improvements that are made upon their land. If a mine was

1181 turned over to you fully developed and with all the things that were of service—

Q. That is not what I mean at all. I am trying to find out—the purpose of my first question on this subject to you was to know whether any such thing as royalty existed in the same sense that a man should pay stumpage, for instance, on timber in this Western country?

A. Well, I say in a small way, but the large corporations, as I understand it, acquire their lands and operate them.

Q. Their own lands? A. Yes, sir.

Q. You could not give, then, I suppose, an intelligent answer to the question of what would be the value of the coal per ton to be worked, even by arranging it from a maximum to a minimum sum?

A. It would be rather hard to do, because it would depend so much upon the local conditions. Everything has to be taken into consideration.

Q. I wanted to ask [—] question for my own satisfaction. If you cannot answer we will let it go.

A. I cannot give you a satisfactory answer without knowing the conditions.

Q. Well, I will undertake now to suppose a case, for instance like the case down here, where it is testified to by Mr. Griffiths that they ran up against this description on section 18 of town 19 north, in complainant's exhibit No. 280, where they ran up against that land on the eastern edge of that section. A. And this belongs to the Union Pacific?

Q. Yes, I understand they have mined right up against the wall and had to stop because it belonged to some one else. Now, take it, for instance, there. As I understand the

1182 testimony they have gone with their face right to the boundary of land not belonging to them?

A. In the face of this working?

[A.] I understand so, with a fifteen foot seam running into the forbidden land not belonging to them, but here marked red. Under such circumstances as that, what would be, in your opinion, a fair royalty price; what could they afford to give for it?

A. Well, that I would hardly be able to say, for the reason that if you will go a mile south of there, just about an even mile south of there, to what we call the No. 2 south mine, after you get about four or five hundred feet down there in that bed of coal, the level barely escapes a very large want that covers this whole territory in there, by about six feet. Now, you see that while it is right up against that, there would be a chance of the same condition occurring as occurred a mile south of it on the same property.

Q. Well, suppose, then, we limit the question to their taking out whatever they can, paying for what they get, paying for the part of it that they take out?

A. Their royalty, I should say, in a case of that kind would be five cents a ton or something of that kind.

Redirect Examination

By Mr. Evans:

Q. The royalty, of course, would depend on the character of the coal and the market and in short, on the profit that could be made from that particular coal?

A. Certainly, the conditions. There is nothing to prevent a man—if I came to you and said that you had something that I wanted and I was willing to pay you a price for it, of
1183 course, you could sell it to me if you wanted to. It is on that basis that I say the royalty would be probably that.

(Witness excused.)

1184 Dr. James E. Talmage, after being duly sworn as a witness on behalf of defendant, testified as follows:

Direct Examination

By Mr. Kelley:

Q. State your name. A. James E. Talmage.

Q. Age. A. Forty-five.

Q. Residence. A. Salt Lake.

Q. Occupation? A. Geologist and Mining Engineer.

Q. How long have you pursued that occupation?

A. I have been engaged, professionally, in geological work since about 1884.

Q. What preliminary educational qualifications did you have for entering the profession?

A. I attended universities. I am a graduate of the Lehigh University of Pennsylvania and have done post graduate work at Johns Hopkins and elsewhere. I have travelled extensively with the express purpose of pursuing my studies.

Q. And since your graduation have you devoted your time, largely, to the pursuit of geological investigations?

A. Yes, sir, geology and its associate sciences have been my specialty.

Q. In line with your general professional work, what positions, if any, have you occupied?

A. I have been Professor of Geology in the University
1185 of Utah for the last thirteen or fourteen years, up to last July when I severed my connection with that institution to go on with my professional work outside.

Q. Do you belong to any recognized societies of standing?

A. Yes, sir.

Q. What?

A. I am a Fellow of the Geological Society of America, a Life Fellow of the Geological Society of Great Britain, a Life Fellow of the Royal Society of Edinburgh and I belong to other organizations not specifically geological.

Q. Have you held any positions in any of these organizations, any official position?

A. No, not in the sense in which I understand your question. I was the delegate, one of the two delegates from the Royal Society of Edinburgh to the International Geological Congress held in Russia, and I have served on committees, etc., in the societies.

Q. Now, Doctor, have you devoted some time to the examination of the coal occurrences and deposits and the connected geology principally in the Western states, where the coal measures occur in the [cretaceoys] formations? A. I have, sir.

Q. I will ask you if you are familiar with the particular field in controversy in this action? A. I am.

Q. I will ask you to state when you were employed in connection with this case by the defendant.

A. On the 4th of April I undertook the examination.

Q. Have you had or ever had any connection with the defendant in this case? A. None whatever.

1186 Q. And what were the terms of your employment or for what purpose were you employed with reference to this object?

A. I was asked to visit the region in question and make an examination of the lands in controversy with regard to their being underlaid or their not being underlaid by coal deposits; that, I think, was all in the way of outlining the case which I received.

Q. Did you receive any other information concerning the matter than that in a general way the question was involved in a controversy? A. Nothing.

Q. Where your investigations outlined to you or limited in any manner as to the course you should pursue in making them?

A. I was left entirely free; there was no suggestion made as to the time or manner in which I should do the work.

Q. And in making your subsequent investigations, was there any difference in your policy suggested?

A. None whatever.

Q. Now, Doctor, when did you arrive at Diamondville and what was the general policy of your examination?

A. In company with Mr. Forrester and Mr. Hopkins I reached Diamondville some time during the night between the 5th and 6th of April, about between one and two o'clock on the morning of the 6th. I devoted a greater part of the forenoon of that day, the 6th, from nine o'clock on, to the examination of the mine map and such maps as were there in the office.

Q. Were these furnished to you? A. At my request.

Q. The maps of what mines?

A. I think that day I saw the maps of No. 1 mine and No. 2, these two maps being really one, being upon one blue print.

1187 Q. Did you deem it essential for any purpose in connection with your investigation to examine these maps.

A. Yes, I did.

Q. Why?

A. I wanted to know, in a general way, in what direction the workings extended in the mines so that in going over the surface I would have some idea of the workings beneath when I was over one of the mines; and therefore I asked if I might see the mine map.

Q. Do you regard the maps of the mine as indicating in any way from a practical standpoint the character of the coal measure that has been encountered?

A. Yes, I think the map of the mine workings would be very suggestive in that line. I mean by that that if you found the workings more extensive on one side of the slope than the other, the question would be suggested as the cause of that, and you would then plan to examine and find out.

Q. Did you at any time examine the mine maps of the other mines?

A. I examined the mine map of No. 4 in addition to No. 1 and No. 2.

Q. Now, in addition to your examination of the mine maps, to which we will return hereafter, what did you do in the way of beginning your investigation?

A. The suggestion was made in conference between us that we travel together and, wishing to find our way with the least possible hindrance, we requested that some one well acquainted with the region should go with us, and Mr. Shurick accompanied us and we devoted the afternoon of that day to the inspection of the region immediately east of the Oyster Ridge.

1188 Q. What was the purpose?

A. My purpose was to see the nature of the outcropping strata on that side, to examine in a general way the stratigraphy of that block of strata.

Q. For what purpose?

A. That I might know what kind of formation I would have to deal with.

Q. Thereafter what examination did you make?

A. The plan was to follow up that surface examination by an inspection of the lands in controversy southerly from Diamondville, but the plan was somewhat changed as to the immediate undertaking, on account of a heavy snowstorm, and we decided on the morning of the 7th to devote our time to underground examinations until the snow had disappeared, and we began at once the examination of mine No. 1 and devoted the whole of April 7th to that mine.

Q. And thereafter you visited other mines, did you?

A. The day after, or April 8th, we devoted the entire day from an early hour to an examination of mine No. 2. The day following that we spent from morning till evening in mine No. 4, and the day following that, the snow having entirely disappeared except a patch here and there, we devoted to an examination of the surface.

Q. In making that examination of the surface, I believe you first rode over and paid particular attention to the surface of the lands that are in controversy in this action?

A. We did, sir.

Q. Was that before taking up any geological examination of the coal horizon, itself?

A. Yes. We wanted to locate ourselves with respect
1189 to the particular sections, and therefore requested Mr. Shurick to take us to certain section corners.

Q. You did identify those corners yourself?

A. I did, and have a description of every corner stone found.

Q. So that you know from the markings on the corners that you were actually at the places indicated?

A. Yes, sir.

Q. Now, then, before taking up the coal feature of the matter particularly, I wish you would tell us, in a general way, what you found on the lands that are in controversy in this action.

A. I found the lands in controversy, without exception I believe, to be valley land and without any outcropping rock in place; we searched for such, I did,—by riding to every ravine or little cut that we could find, but not one of them extended through the surface wash with which the valley is filled. I found simply valley soil with a good growth of grass, greasewood and sagebrush.

Q. This wash, Doctor, of what is it composed; what forms the overcap or surface covering?

A. It is disintegrated rock of a clayey and sandy nature and would be such as would be produced by the disintegration of sandy shale.

Q. Did you upon the lands in controversy find any coal or indications of coal?

A. None whatever.

Q. What have you to say as to whether there are any?

A. There are none; we searched for such and would have found such had they been there.

Q. From an examination of the surface of these lands, and confining it at first, for the purpose of this question,
1190 to what is indicated upon the lands themselves, would you be able to express an opinion as to their character as far as disclosed?

A. With respect to coal showings, you mean?

Q. Yes. A. Yes, sir, I would.

Q. What would that opinion be?

A. From an examination of the lands, themselves, without any examination of the nearest outcrops, there would be nothing to indicate any coal contents.

Q. Then, is it fair to assume that if there is any coal beneath these lands, it is coal which reaches and dips from some coal horizon located entirely without the boundary of the lands in question?

A. It is not only fair to assume such, but such is absolutely necessary, unless you assume that there are coal seams which come up and reach the under side of the valley wash.

Q. Now, as to that, have you examined the stratification of the valley with reference to the character, the geological character of the formations?

A. As far as the outcrops along the edge of the valley allow.

Q. Have you also had access to the geological maps which have been introduced in evidence here?

A. Yes sir.

Q. Referring particularly to complainant's exhibit No. 311. Well, from your examination of the stratification of the land itself, as well as the information which you derived from these maps which have been introduced in evidence, have you an opinion as to whether or not it is possible that the top of any coal horizon lies beneath these particular lands in controversy?

A. There is absolutely no indication of such, and in
1191 my judgment such cannot occur.

Q. Now, having satisfied yourself with reference to what was disclosed upon the surface of the particular lands in controversy, what was the next thing?

A. We next made our way to the outcropping coal measures.

Q. Now, where do these coal measures occur, the outcropping?

A. Along the western base of the prominent ridge known as the Oyster Ridge in geological literature.

Q. Is that position shown approximately, the position of the horizon, by the red line indicated on complainant's exhibit No. 280?

A. I think it is correctly shown as far as I can judge from inspection of that map in comparison with the little map I had with me at the time.

Q. Now, at this point I understood you to say that you found a coal measure? A. Yes, sir.

Q. What do you mean by a coal measure?

A. By coal measures I mean the series of strata which in places contain coal; they would be called coal measures whether they contained coal at one place or not.

Q. I want that clear in the record. Is the term coal measures synoymous with coal deposits?

A. Oh, in a way.

Q. What is the distinction?

A. The distinction is that coal deposits are deposits of coal; coal measures are deposits of stratified rock which in some places are known to contain coal. For example, in the great Wasatch Mountains, running to the west of us, we have the carboniferous coal measures there well developed, all the characteristic fossils of the coal measures of the animal kingdom are found there, but without any coal.

1192 Q. So that, irrespective of whether there is an occurrence of coal itself, the strata that are usually associated with coal deposits may be termed coal measures?

A. Yes, sir. The carboniferous limestones of the Wasatch are universally known as coal measures, because the limestone of that same age in the Eastern part of the United States and throughout Europe do actually carry coal in places.

Q. Then, do you also draw any distinction between a coal deposit and what is known in geologic literature as a coal field? A. Yes, sir.

Q. Why?

A. Because a coal field is an area of land within which coal deposits occur, and there may be within that general area many barren portions as far as coal is concerned. The term coal field is an areal designation, and not a stratigraphic one.

Q. Is it in that sense that it is sometimes said that in the West there is a large coal field extending practically from

the British Possessions, or from within them, southerly through the intermountain states, into Montana, Utah, Colorado, Wyoming and portions of Mexico?

A. Yes, in that sense.

Q. Does that indicate by any means that there is coal uniformly found throughout this region or in all parts of the region?

A. It does not so indicate and is not so understood by geologists.

Q. And it is true that it indicates that coal measures may belong to the same geologic age or occur with reference to the surface of the earth in comparatively the same position?

A. It has reference strictly to the area, the general
1193 area within which coal deposits, whether continuous or not, are found, and if you find coal of one age within that area overlapping or underlying coals of another age, you would speak of the whole region as one coal field without respect to the distinctive ages of the rocks in which the coal occurs.

Q. Now, with that understanding of the term, will you tell us in what manner you began your investigation of the horizon in question?

A. We proceeded to a point about two miles north of Cumberland No. 3, and reached the outcropping horizon there.

Q. That would be about on the southerly portion of section 8 in township 20 north, range 116 west, wouldn't it?

A. Yes, near the center of the south side line of that section 8 named by you.

Q. And from thence did you make your examination northerly, following the outcrop in that way?

A. Yes, sir; we then rode practically on the outcropping edges of the coal measure, never further away from them than the inequalities of the surface made necessary, never out of sight from that point to a point just south from the Diamond No. 2 mine in Oakley.

Q. And from thence thereafter at any time did you examine it any further to the north?

A. Yes, sir. On another occasion we started from Diamondville and traversed the outcropping measures in the same way to a point north of Kemmerer.

Q. Now, then, are you able from your examination to state, in a general way, the principal geologic characteristics of this coal horizon? A. Yes, sir.

1194 Q. Please do so.

A. From the examination of this outcropping horizon or series of coal measures it is seen that they consist of alternating sandstones and shales, fairly uniform in character,

though the shales, as is usually the case, sometimes are more sandy in one place than in another, with a westerly dip, a dip that varies greatly, but in a general way is steeper in the southern portion of this area than in the northern portion, all, however, westerly. Strict conformity is shown of the zone or horizon of the zone, a removal being apparent within the series, and you have here—interstratified with sandstones and shales there are coal seams—practically one coal seam as a constantly recurring seam, and another seam somewhat higher which is not so constant; it appears to be rather exceptional. These coals appear with the rest of the strata a little west.

Q. Do you recognize, then, two seams? A. Yes, sir.

Q. And state generally to what period or stratification this horizon belongs.

A. The coal measures there belong to the Upper Cretaceous Age, practically at the base of the Montana group. I don't suppose you wish great detail on that?

Q. No, I just want it stated as briefly as possible, Doctor; the gentlemen on the other side may examine on that if they desire. They do belong to the Upper Cretaceous group?

A. Yes, sir.

Q. Now, then, what, if any, difference exists as a general proposition between the coal measures of the Upper Cretaceous and the Carboniferous coal seams which exist in the Easterly portion of the United States, to which you refer?

1195 A. The differences, in a way, are not due to the fact that one is Carboniferous and the other Cretaceous, and they are in another way so due, because of the different conditions prevailing during the Carboniferous age, and as we find them, the Carboniferous coals are generally more nearly uniform in any given seam over the area of its deposition than are the Cretaceous coals. There is a difference in the quality of the coal also and a difference in the character of the coal, but the Cretaceous deposits of the West are, broadly speaking, very much more irregular, less generally continuous, less uniform and less certain of occurrence than the coals of the Carboniferous age within the well defined Carboniferous coal fields.

Q. Now, is there a rational explanation of that?

A. Yes, sir.

Q. What is it?

A. During the great Carboniferous time period the evidence, I think, is complete so that we can take it to be a fact and not an assumption, that the climatic conditions were very uniform. The deposition or accumulation of coal went on in a quiet uninterrupted manner; temperature conditions were very uniform and that meant that there was very little in the way of circulating currents producing disturbances either in

sea or air. The Cretaceous time was one of incipient disturbance, less uniform conditions prevailed. The Cretaceous coals are far less generally found in the cretaceous rocks than are the Carboniferous coals; it is rather the exception than the rule not to find coal in the Carboniferous coal measures; it is the exception rather than the rule to find coal in the Cretaceous coal measures.

Q. The outcrop, of course, you say, occurs in the Upper Cretaceous. Now, did you examine the outcrop with
1196 reference to its particular economic and geologic features within the distance you say you traversed over from Cumberland to Kemmerer coal mines? A. Yes, sir.

Q. I want you, if you please, Doctor, to give us a description of that outcrop which will fairly illustrate its peculiar geologic and economic features, using such descriptive notes and memoranda and sections as you made upon the ground and which you know to be correct and which fairly represent it.

A. In a general way, I should say that the outcrop is very easily followed, that is, the outcropping measures; there is no room for uncertainty as to where the coal horizon lies; the upturned edges of the strata are very often found well exposed, and where the soft sandstones and shales have undergone weathering the harder portions are found at frequent intervals, outcropping, and the general character of the outcrop of the coal seam is this, that in places a large amount of coal is found. The outcrop is distinctively a coal outcrop. Then, for long stretches there is very little sign of coal, the place of the coal being taken by the shale, frequently of a dark color, but plainly distinctive and easily distinguished from the coal.

[A.] You say the outcrop is easily followed; do you mean that the stratification is easily followed by a geologist, or would an ordinary man have any difficulty in going on the ground and following the coal, itself?

A. I do not think that any man with ordinary powers of observation would have any difficulty at many points in following the outcrop of the coal measures.

Q. The coal measures. I ask you about the coal, itself, in finding coal.

A. Oh, the coal outcrop only at intervals; there are
1197 long stretches with no coal at all.

Q. When you speak of the outcrop, then, you refer to the coal measures?

A. Certainly; I so specified. Now, your question called for some description in detail of that, and I will say that we examined the first exposure after reaching that southerly point on the outcropping measures where the coal horizon near the southerly boundary of section 8—

Q. Do you refer to notes made by yourself at the time and which you know are correct?

A. I refer to notes made by myself and in the field, and which notes have not been out of my possession.

Q. Very well, you may proceed.

A. At this particular point, which has already been described and correctly described, as lying in the southeast quarter of the southwest quarter of section 8, township 19 north, range 116 west, I observed the coal exposures and measured there a section, which section is already in evidence, and I heard it described and saw it marked here in court as exhibit 5, No. 12. Do you wish me to repeat the sections?

[A.] Why, I think it is hardly necessary, beyond a corroboration of the sections where you can corroborate them independently? A. I can corroborate that section.

Q. You may state, though, and if there are any changes at different places or additional information that you can give us, I think you can state that.

A. I have nothing to add to that section; I find it to be correctly shown. I checked it up with my own notes since it was marked in evidence here.

1198 Q. I wish you would state, however, your own opinion as to what the section shows as to the character of the vein at the place where it is disclosed, with particular reference to the amount and workability of the coal.

A. This section shows three portions of the coal seam separated by non-coal material. Under the shale roof there are seven inches of poor, dirty coal and immediately under that I find one foot, seven inches of soft shale, then I find fourteen inches of coal, when I find a band of bony material, bone coal, about five inches in thickness, then three feet, three inches of coal, and I consider the coal at this point entirely worthless from a commercial point of view; the product would not be usable without separation and picking.

Q. Would the presence of the coal as described by you add anything to the value of the land, in your judgment, to a purchaser?

A. No. Coal of this quality could not be mined with any profit at all; it is not a usable coal; it is not a commercial product.

Q. Would it, therefore, add anything at all to the value of the land to a producer? A. Not in any sense, I take it.

Q. Very well, Doctor, you may proceed.

A. I perhaps could add, except in a speculative sense it would add no value to the land. If a man wanted to speculate on a prospector's chance of finding something in the land and took this as an indication that he had any such chance, I would question his prudence and his wisdom on the matter decidedly;

but there is no intrinsic value in the land for coal of that quality.

1199 Q. Is it possible you may run into a metalliferous deposit of some kind?

A. Certainly; there may be a gold placer deposit down there, I should add that at this point already described as the location, the dip of the strata according to my own measurement is well defined, seventeen degrees to the west. The next point of observation was on the same section, in the northeast quarter of the southwest quarter of section 8, township 19 north, range 116 west, where I found an abandoned incline. The strata there are dipping nineteen degrees to the west and the coal measures there are well exposed. A section was carefully measured and I have the result before me and it is identical with the section already introduced, found on defendant's exhibit No. 5, numbered 11. I checked it up and found that it agreed with my notes.

Q. What is your conclusion or opinion as to the economic value of the coal where disclosed at this point?

A. The coal disclosed there has no ecoonmic value at all. I found six inches of coal at the upper part, under a sandstone roof; then with many intervening bands, I found fourteen and a half inches of granular coal further down, and then another separation of clay shale, and one foot, seven inches of coal. The clay shale floor is a soft shale and were any extensive excavations made upon the floor and the coal removed, if it could be removed, the pressure would cause the soft shale to swell up and no track could be maintained in a mine with a floor of that sort.

Q. Now, did you, at points between the places where you took these sections endeavor to examine as closely as you could the character of the vein?

1200 A. Yes; between those two points there is nothing to indicate anything other than the dirty coal I have described at these two points.

Q. Very well, you may proceed.

A. My next specific observation was made on that same section and quarter section, namely, the northeast quarter of the southwest quarter of section 8, about five hundred feet, perhaps, north of the last point. I found there an incline extending about thirty feet from the portal. The coal measures there are well disclosed by the excavation that has been made. I made a measurement of the section so exposed and found the results to correspond exactly with those shown in the section already in evidence, defendant's exhibit 5, section No. 10, which I compared with my notes and found to be identical. The coal at that point shows itself as a nine inch band in the upper part of the seam, underlaid by a clay shale of three inches and this

followed by one foot, six inches of coal then another clay band and then one foot, eight inches of coal, then another clay band and then three feet, six inches of coal. The coal as mined would be dirty and shaley, and work on the incline has been properly abandoned. The dip of the strata at that exposure is twenty-one degrees to the west.

Q. How about the intervening section of country?

A. There is no well defined exposure between those two points, but such outcrop as occurs there indicates the same condition. There was no further good exposure of coal by any artificial work at all, but the natural outcrop of the strata is quite plain between that point and the middle of section 5 immediately north of section 8. We found there the diamond drill hole which has been described here as diamond drill
1201 hole No. 3. In that immediate vicinity the strata are well exposed, the coal measures are dipping there twenty-five degrees to the west.

Q. You could not examine the measures themselves to ascertain the character of the coal there?

A. Yes. There is no coal there.

Q. Absolutely none? A. None showing at all.

Q. Now, between this point, Doctor, and the next southerly place where you describe a section of the horizon, what have you to say as to the intervening space; did you make any examination of it?

A. The coal does not occur as a well defined outcrop at any place between those two; there is a small amount of coal blossom at one or two small pits that have caved in.

Q. What do you mean by blossom?

A. The term coal blossom is applied to disintegrated coal mixed up with the earthy material of the coal seam.

Q. Showing at the surface?

A. Showing on the dump of these small pits.

A. It would save time, Doctor, where you have in your book a section that corresponds to, or where you have taken one in the immediate vicinity of a section exhibited in Professional Paper No. 56, if you were to indicate that as you go along.

A. The section already referred to by me, the first one taken, that is, the most southerly described as being taken on the southeast quarter of the southwest quarter of section 8, corresponds with the section given by Mr. Veatch in Professional Paper No. 56 as section No. 48, page 124. The second section referred to by me as taken in the northeast quarter of the south-
1202 west quarter of section 8, corresponding in No. 11 on defendant's exhibit 5, is to be compared with Veatch's section 47, page 124 of Professional Paper 56.

Q. As you go along you may refer to the sections; have you examined those sections in Professional Paper 56?

A. Not in detail; I had the book a very short time, and simply checked up the descriptions as to location.

Q. Well, go ahead.

A. The third section given by me as corresponding to defendant's exhibt 5, section No. 10, corresponds with Veatch's section No. 46, page 124.

Q. Now, Doctor, let me ask you if you were given Professional Paper 56 and made the comparison as you went along, do you think you could expedite the matter, rather than going back to it subsequently, or would you want to examine them first?

A. I haven't examined them in detail at all, but I can do that as we go along quite as well as at any other time.

Mr. Birch: Your other witnesses have already checked them up, haven't they?

Mr. Kelley: I am not sure.

Mr. Birch: They both did.

Mr. Kelley: Have you the Professional Paper?

(Professional Paper 56 produced.)

1203 Q. I suggest that you take this from now on, and then of course you can take the three or four that have been omitted and go on with it, so as not to break the continuity of your examination in the record.

A. From drill hole No. 3 I followed the outcropping coal horizon northerly to a point on the north boundary line of the southeast quarter of the southwest quarter of section 32 township 20 north, range 116 west. The intervening space showed no well defined coal exposures at all, nothing but a little coal blossom in one shallow pit, I believe, but at this point I found an incline extending about ten feet from the portal, which had been run on the dip of the coal measures. The strata at that point were dipping thirty degrees to the west. The section which I measured there corresponds exactly with section No. 9 on defendant's exhibit 5, and corresponds also with Mr. Veatch's section No. 38, on page 123.

Q. Now, when you say corresponds, do you mean that it agrees with the detail of the section, or that it is correlated with that number?

A. It corresponds as to location only.

Q. What, if any, difference is there between the sections as described by you and by Mr. Veatch?

A. The sections are almost identical, even to the inches, except that where Mr. Veatch uses the term rock, I have used the term bone coal for the upper four inches and clay shale for the lower five inches; there he puts in rock ten inches, so

that there is a discrepancy there of just one inch; in the other cases, as to the coal itself, we agree even to the inch.

Q. What is your opinion as to the economic value there?

A. Let me add that in the lower band of coal there is
1204 a difference of two inches only. The coal there is worthless. From that point northerly I traversed the outcrop of the coal measures without finding any measurable exposures of coal, but the measures themselves are well exposed. About a quarter of a mile northerly from diamond drill hole No. 4 the outcropping strata appear as well defined ledges of moderate height, and showed a dip of forty-three degrees to the west.

Q. Is that the steepest dip that you encountered?

A. I believe that to be the steepest of all, yes. That I should add, is not a local dip, of one particular part of the ledge, but it is the dip of the entire formation at that place.

Q. Do you know for what extent along the outcrop of the measures this dip is maintained?

A. Yes, for three or four hundred feet, at least; I could measure it at any point for three or four hundred feet, I think; I say that from memory, but I believe that to be correct. In the northeast quarter of the northwest quarter of section 32, township 20, their actual pitch, designated on this plat, which I had in my possession on the ground, as Nos. 14 and 15. I found the two pits, and no coal at all is exposed in either of them.

Q. Were they in position to have encountered coal had it been there?

A. They were right on the outcropping measures, yes, sir.

Q. I mean, had there been any on the horizon?

A. Had there been coal in the measures at that place it would have been found. There is no coal on the dump, even, of the little pit.

Q. Was there at that point what you would term a
1205 want? A. Yes, sir, an entire absence.

Q. Please define a want, Doctor, will you, as you use it in your evidence.

A. The term want is used as describing coal deposits, refers to an absence of the coal within the measures where the coal should occur provided the coal occurring elsewhere in those measures were continuous. Now, that want may be due to an original non-deposition of the coal at that place when the other coal was deposited, or to its removal by erosion or otherwise after it was deposited, but from whatever cause, the absence of the coal in the strata at that place would be called a want, and such a want is encountered in the coal measures in section 32. I followed the outcropping coal horizon or strata, without finding any coal, from that point north to the

south boundary line of section 29 of the same township and range, immediately south of which boundary line, a short distance south, diamond drill hole No. 2 occurs. I examined the top of the drill hole, but that was all the examination possible of it, but at this point indicated on that south boundary line of section 29—that is, the south boundary line of the southeast quarter of the southwest quarter of section 29, I found an open incline designated upon the plat which I had in my possession as No. 13. This incline showed a full exposure of the coal measures at that place. I measured a section there, which section is identical with section No. 8 on defendant's exhibit No. 5 in evidence here and corresponds as to location with Mr. Veatch's No. 34 recorded on page 123 of Professional Paper No. 56. The section by Mr. Veatch corresponds sufficiently close to mine, in fact, they both show absolutely worthless coal at that place. Mr. Veatch records two feet,
1206 eleven inches as the greatest thickness of the coal in the main seam and I have two feet, nine inches with a two inch band of black shale, which he may have included with the coal there; I don't know; it is quite possible.

Q. Between that opening and the last, did you examine the outcrop?

A. Yes; I have described the intervening ground.

Q. Oh, you did; that is right.

A. Proceeding northerly from the point where this last section was taken I found an open incline in the southeast quarter of the southwest quarter of section 29 of the same township and range, an open incline about forty feet down on the dip of the strata; this shows no coal at all.

Q. Is it in position to show the coal if there had been any in the coal horizon?

A. Yes; the incline is run down on the coal measures; there is an absolute want there. The dip at the place of the last section on the south boundary line of section 29 was thirty-seven degrees to the west; the dip at this particular incline is between thirty and thirty-five. The soft material has fallen in there. I then continued northerly without encountering any coal along the outcropping measures to a point which I will describe as in the southeast quarter of the southwest quarter of section 29 near, if not directly on the central line of that section running north and south, where an incline is encountered running approximately eighty feet down on the dip to the west,—descends on the true dip of the strata, which at that place is twenty-four degrees. This section is identical with section No. 7 on defendant's exhibit 5, already in evidence. It shows a lower band of coal within the seam of three feet, six inches; two upper bands, one nine inches and

one four inches, with separating lines of bone coal and
1207 sandstone and with large sandstone lenses in this three feet, six inches of coal. The coal at this place, this lower band of coal is of good quality, but entirely unworkable on a commercial basis.

Q. Now, these inclines that you have testified to, they were prospects were they, run down on the coal measures? A. Yes.

Q. And have been abandoned?

A. Abandoned, yes, sir.

Q. Very well. They are on the seam, are they, that you have described as the main seam?

A. They are correctly placed to strike the coal, yes. Another incline is encountered but a short distance, a few hundred feet northerly on the same quarter of the same quarter, and at that point the strata are well shown with a well marked dip of twenty-two degrees to the west. This is a steep incline. I can state only on information given me that it extended one hundred and sixty-six feet down; at the present time I was unable—or at the time of my visit I was unable to get further down than seventy feet from the portal, on account of water. A section taken in that incline about sixy feet from the portal, the nearest and best place we could find, I mean as to the exposure, showed the measures, and my section is identical with that already in evidence as No. 6 on defendant's exhibit 5.

Q. You did not tell us what was shown there by the section.

A. The section shows three feet, eleven inches of coal with large sandstone lenses, some of them eight inches thick and four feet long, right in the coal band itself, and the upper layer of one foot, one, making a total thickness of coal
1208 there of five feet, with a nine inch band of sandstone in addition to these lenses and two inches of soft, blake shale below. The coal is unworkable from a commercial point of view, in my judgment. A short distance northerly on the same quarter of the same quarter is another incline run down on the dip of the strata, which, at this point, is twenty-eight degees to the west said incline extending ninety feet down from the portal. This is about seven hundred feet northerly from the last section place, and I took a section at that exposure about thirty-five feet down. I would add that my statement, that it is run down ninety feet is based upon information given me, as the water stands now at a point about fifty feet from the portal and I could not get down any further. The section there taken is identical with No. 5 on defendant's exhibit 5 now in evidence, and shows three feet, eight inches of coal with large sandstone lenses and an upper band of one foot of very dirty coal, separated from the lower coal by fourteen inches of shale. The lower coal is underlaid by a three inch band of bone, and that by a soft, black shale, making a poor floor. The coal itself, in

my judgment, is unworkable on any commercial basis. I then followed the outcrop northerly into the southwest quarter of the northeast quarter of section 29, same township and range, where I found a small pit designated on the plat in my possession as No. 11, showing very little coal on the dump and some black shale, but no exposure of coal to permit the measuring of a section there. Going then northerly, I found no exposure of coal between that point and the put marked No. 10 on the plat, which is just north of the north boundary line of that section, or in the southeast quarter of the southwest quarter of section 20. This shows a little coal on the dump, but no section is measureable there; no good exposure, the hole having
1209 caved in. That same conditions are encountered in continuing north from that point to two pits shown on the plat in the same section, and this would be in the northwest quarter of the southeast quarter of that section. These pits are designated on the plat as Nos. 8 and 9, and they are clay pits with a very little coal on the dump of one, No. 9. The same lack of coal in the outcropping measures was noted northerly from the pit marked No. 7 on the plat, which is in the northwest quarter of the northeast quarter of section 20. In pit No. 7 there is no coal shown.

Q. 7 was the designation of that shaft?

A. Of the pit, yes. I ah giving these designations as they are numbered on this plat. My next examination was made at the next exposure which is at a point in the southwest quarter of the southeast quarter of section 17, just above the south boundary line of that section, and it is designated as pit No. 6 on this plat, and the section there taken is identical with section No. 4 o ndefendant's exhibit 5 in evidence, and compares as to location with Mr. Veatch's section on page 122. The sections shows a large coal exposure, the upper band of the coal being seven feet, ten inches, by my measurement, with large sandstone lenses, overlapped by clay shale and bone and a hard roof of sandstone; underlaid by two inches of clay shale and one inch of sandstone and that followed by four feet, nine inches of coal with a good, hard, clay shale floor. An incline has been run down some distance on the dip, which at this point is twenty degrees to the west. Mr. Veatch's section shows more coal than I find there, but both sections show a large exposure of over twelve feet of coal.

Q. Which, of course, would be commercially valuable
1210 and workable?

A. Yes, sir; that is a good bed of coal. That is very close to the workings of No. 4 mine. I followed along the outcropping measures above the mine workings, and there is a small pit that is marked upon the plat as No. 5 which I did not see. I then followed along the outcrop, and it is a very small

pit and I saw it, but I did not make a note in regard to it; it has been testified to by these other men. My next observation was made of an exposure at an old abandoned working on the northeast quarter of the northeast quarter of section 17, very near the northeast corner of that section. I measured the coal and other strata there exposed and my section corresponds with section No. 3 on defendant's exhibit 5, but is not identical, I noted in reading that, and that three feet of coal was shown upon that section. I measured three feet, six inches there, but the bottom is not exposed, perhaps. I noticed three feet, six inches were exposed. I mention the difference, because such is my note, but with that exception it is identical with No. 3 on defendant's exhibit 5, and this section corresponds in location very closely with Mr. Veatch's sections 23 and 25 on page 122; I presume that one of those refers to this identical exposure.

Q. You mean as to location?

A. Yes. His 23 is given as occuring in the southeast quarter of the southeast quarter of section 8, and his 25 as occurring in the northwest quarter of the northwest quarter of section 16, but the incline is almost at the very corner, and this section might correspond with either one of those of Mr. Veatch. As regards the coal there shown, either one of them sufficiently resembles my section to be considered the same, but Mr. Veatch's description makes it a little poorer coal than my section
1211 does. I note that between the place that this section just described was taken and the place of the last section described there are a number of shallow, coalless pits along the outcropping measures, the coal not shown by the shallow pits which have been dug there.

Q. Are these pits sufficiently deep to have shown the coal if it had existed?

A. Yes, but they are so badly caved in at the present time that one cannot tell what was disclosed. I indulged the inference that if coal had been taken out of the pits there would be some evidence on the dump. I then followed the outcropping measures northerly or northeasterly from that point, without encountering any exposure of coal, to a point near the center of the southwest quarter of section 4, at which point is a pit designated on the plat as pit No. 2; that is a prospect, designated prospect No. 2, and very close to diamond drill hole No. 4. This exposure and the abandoned workings there, I was informed, had once passed under the name of Diamond Mine No. 5. The workings were badly caved beyond fifty feet from the portal. The strata were found dipping there twenty-three degrees to the west, on which dip the incline has been run down. The section which I there made is identical with section No. 2 on defendant's exhibit 5, and corresponds with Mr. Veatch's section No. 21, recorded on page 122 of

Professional Paper No. 56; that section by Mr. Veatch is sufficiently near my own section to be evidently taken at the same place, and while we have a good exposure of coal there with separating bands, it grows worse as it descends the incline, and that led me to make inquiries as to the condition of the coal at greater depth when the workings were accessible. I simply state that on hearsay.

Q. Well, you may omit that, if you please.

1212 A. Yes. The four feet of coal there exposed, as recorded as four feet on my section and four feet of coal and bone by Mr. Veatch, is worthless practically throughout, its lower half being very dirty. That was the last exposure of the measures examined along the outcropping horizon. South of my No. 2, and we followed the horizon outcrop until we were practically over the workings of mine No. 2, and finding no other exposures, closed the labors of that day at that point.

Q. When did you take up your examination of the outcrop to the north, on the succeeding day?

A. Yes, the succeeding day.

Q. Well, let us finish with that, then, Doctor, at this time.

A. That would be on April 11th. We started to examine the exposures immediately north of mine No. 1. Our first detailed examination was made in what was named to us as Jenkins Coulee or Jenkins Draw, in which an abandoned mine working was found, and this was described to us as the mine known as the O. O. mine or the upper seam.

Q. Is that the seam which has been described and referred to in the record in connection with the preliminary bulletin of Mr. Veatch, as occurring about fifty feet above the main Kemmerer vein?

A. Yes, and it does occur about fifty feet; I think that is a fair statement of the stratigraphic distance of that bed above the other.

Q. What character of coal seam would you call his O. O. seam with reference to its continuity?

A. Oh, it is an adventitious seam.

Q. By that you mean what?

1213 A. Not a regular recurring seam; I did not encounter it at all further north, and it dies out at the south; it seems to be a local coal deposit there. The section which I there took, I believe, has not been introduced in evidence.

Q. What number have you given it?

A. I dont think it has been introduced at all; it is on a separate section.

Q. Oh, this is the O. O. seam; that has not been introduced.

A. I have my section here as I took it, and that has been made by the draftsman.

Q. Well, you may read the section as you have it in your notes and I will see if I can find it.

A. This section I measured about forty feet in the main entry from the portal. Beginning at the roof I find the following—

Q. What is the character of the roof?

A. A sandstone roof, solid and compact.

Q. Is it frozen in any way to the coal?

A. The coal is frozen to the roof.

Q. What do you mean by that term?

A. It does not break off readily, but clings to the roof as you shatter the coal with a hammer.

Q. How does that effect the mining of it, if at all?

A. It makes the expense of mining very much greater, and is a very unfavorable condition. The section from the roof downward reads as follows: sandstone roof; three inches of bone coal; two inches of clay shale; one foot of bone coal; three feet, three, of coal, with large sandstone lenses in the upper half; two inches of clay shale; two inches of sandstone; one inch of bone; two inches of sandstone; five inches of coal; eight inches of broken, granular coal, such as has been described here as bastard coal, and a sandstone
1214 floor.

Q. What have you to say as to the workability of this seam?

A. I regard it as non-workable, commercially, on account of the large interstratification of sandstone and shale, and particularly unfavorable is the freezing of the coal to both roof and floor; it does not separate at all in a clean manner. The strata at that point and the coal seam, of course, also are dipping fourteen degrees to the west. I describe this as occurring in the Jenkins Draw or Coulee, which I take to be near the southwest corner of the southeast quarter of the northwest quarter of section 24, township 21 north, range 116 west.

Q. You may proceed, Doctor.

A. The next exposure of coal that is at all well defined, traveling northerly from that point, is an exposure on the road between the Frontier mines No. 1 and No. 3; I estimated it as being about half a mile north of No. 3. It is located in the southwest quarter of the southeast quarter of section 12, township 21 north, range 116 west, at which place a section was carefully measured, which section is the same as section No. 1 on defendant's exhibit No. 5, and the section is identical with that, except in one minor particular. I see that the section shows eight inches of dark shale immediately under the eight

inches of light colored shale, which lies immediately under the eight feet, eight inches of coal, my section shows five inches of dark shale instead of light; it is a minor difference, but I noted that as I compared the two. The coal there is of good quality and presents eight feet, eight inches in one band, and then with an eight inch layer of bone above intervening, you come to another one foot, two inches of coal, making a total thickness there of practically of twelve feet of coal.

1215 Q. Does that conclude the examination which you made of the outcrop? A. Yes, sir.

Q. Will you tell us from a geological and practical standpoint what relation the outcrop or horizon bears to the general features which may be expected to be found in depth on a coal seam or coal measure?

A. The relation may be different in different parts and places; for instance, if I find the outcropping coal seam here to be persistent, uniform and continuous, if in traveling along the outcropping coal measures I find always the coal outcropping with reference to the strata wherever an exposure occurred, and if I found in examination of such excavations as have been made by following down from the outcrop that there was a uniformity and marked continuity and lack of irregularity in the coal, I would then say that the occurrence of a large outcrop gave fair assurance of a large and continuous coal deposit beneath. If I found, as I do find in this case, an outcrop which is exceedingly variable on its strike, sometimes presenting twelve feet of coal, and within a short distance practically no coal, and if as I go down on the dip of this coal seam as far as the excavations will permit I find similar variations, I should say that the coal outcropping at any place along the horizon tells me that I may find coal beneath, but gives me no assurance that I will. The outcrop here shows wants or entire absence of coal in many places and the work that has been done on the dip of the seam shows lack of regularity, and therefore the relation between the outcrop and the underlying coal bodies in this case is a decidedly uncertain one, and one which I could not possibly interpret with any degree of assurance as meaning that a big outcrop

1216 means a continuous coal body.

Q. Is the present outcrop of this coal horizon the original elevation at which the strata stood; is that the original elevation?

A. No; originally all these strata were horizontal, and what is now depth on the dip originally meant extent on that horizontal plane.

Q. Then, of course, at some time this elevation occurred, and when this elevation occurred was the top or surface of

the strata in the same position as the outcrop of the horizon which you find today?

A. No, sir; erosion has gone on to a very marked extent over this entire region and over that particular part of it, and what you find now is the outcropping edges of the coal series at the elevation to which they have been cut down by erosion.

Q. That being true, the outcrop today represents what would have been encountered upon the dip in the past?

A. Decidedly so.

Q. Therefore can you say that it is fairly representative of what may be expected to be encountered—or the portions that are encountered are representative portions of what may be encountered in depth, from that outcrop at this time?

A. Yes, sir.

Q. Prior to any development, say, southerly in township No. 20, would you have advised, with any certainty, or ventured an opinion as to the probable depth to which coal might be found in places where you had a good showing at the outcrop?

A. No, sir; after a careful study of that outcrop I would not predict a continuity of coal downward on the dip with any assurance.

1217 Q. Then if, prior to the time when No. 4 mine and the Cumberland mines had been opened, you were asked to report to a client or to the Government whether the land embraced in sections, 18, 20, 30, 6 and 12 in township 19 and colored in red here on this map, and also the land in 20 colored red, were coal lands, could you have hazarded an opinion that they were?

A. Yes, I would have had a very decided opinion after examining the outcrop and the conditions of the stratification there.

Q. And what would that opinion have been?

A. Recognizing that the fact that the term coal land is one which has been applied with legal limitations, that it is not a scientific designation of the land at all, but has reference to the value of the land for, or as a source of coal, I should unhesitatingly have reported that these were not coal lands.

Q. In your answer I also meant to include, but inadvertently omitted the portions of land colored red in section 18, township 19 north, range 116 west.

A. I make the same answer to that.

Q. Now, in describing the outcrop as you have given it to us, is it true that you found working mines at the point where the outcrop showed the workable coal? A. Yes, sir.

Q. Or in the vicinity? A. Yes, sir.

Q. Do you know, as a geologist, or could you recommend to a client the location of a single mine along this outcrop, not now accessible from the mines already located, with any assurance or probable assurance I will say, of a return sufficient to justify the expenditure necessary to develop the mines?

1218 A. No, I know of no place between Diamondville and Cumberland where there is any promising condition for the opening of a mine.

Q. Could you, as a geologist, from your examination, from your surface examination alone now, recommend to a client, or would you, yourself, if you were seeking coal, recommend the expenditure necessary to recover coal if it existed in any of the lands in controversy in this case by the opening up of a mine for that purpose upon the information that you are able to gather from the surface conditions?

A. I could not, in view of the very steep pitch which these coal measures have, and consequently the very great depth that would soon be attained, and the condition of the roof and floor, which condition is so unfavorable that in the mines now being operated I find in many places a complete breaking up of the coal measures themselves in the mine. In one place in No. 1 I found in a part of the mine that had not been worked for some time, that the roof has come down and has completely filled up the entry so that it would have to be blasted out again if it is ever recovered; in other places I found the soft shale floor yielding to the pressure and swelling up in the entry, carrying the track with it half way up to the roof, and as I found from the examination of the workings of the mine and from my examination of the outcrop that this soft shale and clay underlying the coal is likely to be encountered at any time and at any place, that this condition of unsafe roof is practically general throughout the region there, I should say that the disadvantages are altogether too great, and I would not consider that any mine could be opened there and profitably operated.

Q. Well, I will take you into the underground examination later. For the purpose of this question I wanted to ask you about this land that is in controversy in this case,

1219 as segregated portions of the public domain, without development in the region except a few prospect holes along the surface on the outcrop of the horizon, would it, in your opinion, be a reasonable undertaking to proceed to develop coal on these lands, unless you encountered a place on the outcrop where there was sufficient coal to justify you in starting so that you could take out enough as you went down to develop the mine?

A. No, sir, I would not; I think in small parcels that the land would be entirely worthless, even if the conditions for mining were far more favorable than they are.

Q. Well, take it in parcels of six hundred and forty acres?

A. I have not made a detailed calculation as to what the terms of the assumption would be, if I may go upon information given by others and presumable authorities—I distinctly remember that Mr. Taft, the Government geologist, stated under oath in my hearing in the investigation of a coal case in Utah, that with the five and six foot seams which they find at Sunnyside and the Castle Gate region he considered that no big coal mining enterprise would be justified unless those opening the mine had at least two thousand acres to insure them a good territory to draw from.

Q. Well, that is not quite the question, Doctor. I want you to assume that the Government owned the land that is in controversy in this case, that there was no development on the outcrop other than prospects, that your opinion was asked as to whether anyone would be justified in buying this land as coal land under those circumstances?

A. In segregated parcels?

Q. In segregated or in aggregated or in any other way, but without any further development than you might have in a prospect there on the outcrop to the east of it?

1220 A. I should advise no one to buy under those conditions.

Q. Now, then, after making your surface examination, did you visit some of the mines? I believe you did state that you visited some of the mines.

A. Yes, sir.

Q. And did you make an examination of some of the underground workings?

A. Yes, sir.

Q. For what distinct purpose?

A. For the purpose of gathering information as to continuity or lack of continuity, regularity or lack of regularity of the coal deposits, themselves, and for the purpose of finding if possible the reason why the workings were at one side in every mine as the map showed. A striking feature of the maps there as they appealed to me on the first examination was the fact that every mine is a one sided mine, each of the three mines; workings are carried to a much greater extent in one direction than in the other.

Q. And you are familiar with the general method of operating coal mines, are you?

A. Yes, sir.

Q. What would that indicate to you, the condition of the map and the workings?

A. It would indicate that there is a well defined limit set by some conditions or other to the workings; for example, in this map of No. 2 mine—

Q. Defendant's exhibit A.?

A. Yes, sir. That map I examined before going into the mine, as I noted that in mine No. 2 the workings were far more extended on the north than they are on the
1221 south of the main slope, and far more regular in their termination on the north than they are on the south, and that any workings to the south of the main slope I find those that are nearer to the mouth of the slope extend further than those that are further down, and the question as to whether that was simply due to the fact that the work had not yet been pushed that far, or whether work hadbeen there stopped, was one that suggested itself to me on investigation of the map. On going into the mine I sought to reach places which could give me some information by which I could arrive at an answer to that question in my mind.

Q. Did you visit and pay particular attention to the south end of that mine?

A. Yes, sir.

Q. Did you, as a result, obtain any information that led you or that enabled you to form an opinion as to why the working on the south side of that slope is comparatively little?

A. Yes, sir.

Q. What was it?

A. I found the coal in that region to be of a poor quality and to be diminishing in quantity, and I consider the mine worked out to its limits on the south of the main slope. I find further that the coal had diminished as we descend in the main slope and I arrived at the conclusion in my own mind that they were near to the boundary limit of the workable coal, that is, coal that could be extracted in a commercially, profitable way.

Q. Then, do I understand that there is a sort of basin of coal, as you might call it, an irregular shaped area of coal, toward the limit of which these workings of this mine have been projected?

A. Yes, sir, that is quite in accord with what is shown
1222 on the outcrop and what is shown throughout this coal field. The coal in this great Green River coal field occurs in undulated basins in that way.

Q. Did you make measurements of the exposures at different places in the mine workings? A. Yes, sir.

Q. Well, you went into No. 1 mine first, did you not?

A. Yes.

Q. We will take them up serially. We will take up No. 1, for instance, and I will ask you if the same general answers you have made apply to No. 1 and No. 4? A. Yes, sir.

Q. Now, in this matter I think it unnecessary to re-read your sections in where they agree, but to just simply describe in a general way, so as to qualify your opinions as evidence, the examination that you made.

A. I would like a copy of the map of my No. 1; I haven't one here; I have one at my room.

Q. Well, suppose we take up mine No. 4 first, and work northerly, and then probably the interval will arrive before you need the map of No. 1. A. Very well, sir.

Q. I hand you defendant's exhibit No. 15 showing the map of No. 4 working and I want you to tell us, in a general way, what this map indicates, what the workings on it absolutely show?

A. An inspection of this map, No. 4, was made before I entered the mine, and it showed that the workings on the north side of the slope were very much restricted as compared with those on the south, showing the condition already referred to with reference to the map of No. 2 in even in a more
1223 strongly marked way.

Q. And as to the workings on the south and their extremities, what conditions is shown?

A. The workings on the south of the main slope terminate irregularly toward the south, and a noticeable feature there was that some of the entries have been driven both on the north and on the south for long distances without any rooms being turned off, and I wanted to know the cause of that, on being informed that the maps were up to date.

Q. The workings on the south terminated irregularly to the south, but as you progress in depth, the termination is northerly on the lower levels, isn't it? A. Yes, sir.

Q. Approaches the slope? A. Yes.

Q. All right, now. Take up No. 4.

A. I descended No. 4 from the mouth or portal to the 3rd north entry or level and traversed the 3rd north to its face; returning then to the slope I descended to the 5th north and traversed that to its face; returning to the slope I descended to the bottom of the slope and then passed from the main slope along the deepest working on the south side of the slope, namely, the 5th south, and in the course of that journey, or those journeys, examined the coal and at intervals took sections, measured sections. The places at which these sections were taken are indicated upon this map, defendant's exhibit No. 15, by the red crayon crosses, the red crayon line indicating the course of the journey.

Q. Now, then, what have you to say as to whether the sections you took are fairly representative?

1224 A. They are.

Q. And do they show sufficient to enable you to form the opinions which you are called upon to express concerning the lands in controversy?

A. Yes, sir; I consider the inspection of those parts of the mine quite sufficient to afford me an answer to the questions which have suggested themselves.

Q. Would it be necessary for you to visit separate rooms in order to form a conclusion about it?

A. Oh, no, indeed; the map, itself, shows that where these rooms are turned off at regular intervals, and where they are run to their full extent, that the coal was there in fairly uniform and continuous bodies. It was the irregular parts that I wanted to visit.

Q. Very well, Doctor; you may give us the result of your measurements, by reference to your notes, and memeorannda and sections.

A. Descending the main slope to the 3rd north entry or level of mine No. 4, I entered at the entry or level and took a section at the entrance of room No. 1 on that level, the room nearest to the main slope. That section is identical with section S. on defendant's exhibit 16, and with section A. 1. on defendant's exhibit 19. I found the strata there dipping westerly, slightly north of west, at an angle of twenty-one degrees. The strike there is north ten degrees east, and the section shows a good quality of coal with an argillaceous sandstone floor; one continuous bench of coal of six feet, one above that with only a one inch band of bone separating the two, of one foot, six inches, and then with a two inch shale separation, we come to three feet, four inches of coal, which, however, is not of

1225 good quality. This section was taken about two hundred feet northerly from the main slope; it is good quality of coal. I then followed that 3rd north entry to room 15, at which point a section was taken, this room being about nine hundred feet from the main slope, I estimate. I found the coal there dipping twenty-two degrees to the west, and the section which I there took is identical with section T. on defendant's exhibit 16. The coal is shown there very much less clean, intermixed with much more shale and sandstone, in other words, the bands are coming in and the coal is somewhat dirtier. The excavation there really goes down beneath the working floor of the coal deposits; the slope or pitch or dip of the coal seam is such as to permit the loading of cars at the bottom of the room, a chute being employed for dropping the coal down into the cars, and therefore just inside of each of these rooms there is what is called the chute hole, into which the cars

are run. In that section to which I refer and which I say is identical with my section, which is section T. on defendant's exhibit 16, the bottom of the working coal floor is at the base of one foot of coal, which is separated from the six foot bench of coal by two inches of bone. I then continued along this entry to room No. 20, crossing a small fault on the way to room No. 23, at which place a section was taken which on defendant's exhibit 16, is designated as section U. Mr. Forrester, in testifying to that, stated that this was at room 20, and he placed a red, crayon zero after the figure 2, as if it had been printed properly, Mr. Hopkins testified it was at the mouth of room 23. The mark on this map has been made in accordance with room 20, but my notes show that it was at the mouth of room 23, and I call attention to that as a discrepancy which would appear hereafter
1226 without an explanation. I think that the section was taken at the mouth of room 23, and not at the mouth of room 20, but my section is identical as to contents with exhibit 16, section U. The dip of the strata at that place is twenty-one degrees to the west. The coal is becoming very much less valuable; in place of the six foot band found further back, we have now a lot of broken coal and many interstratified bands of sandstone and arenaceous shale, or sandstone and clay shale, and the coal is of very poor quality, at that place but still it has been worked there and for some distance beyond. I then resumed my inspection of the main entry from this room, and went on to the face; that is, the 3rd north entry, I mean. For a considerable distance back from the face no room has been turned off and the entry has been carried on evidently as a pure prospect. At the face—the material is partly caved, by the way, for the last hundred feet, but at the face I took a section which is identical with defendant's exhibit 16, section V., which shows from two to three feet of badly broken coal which has been called bastard coal; immediately above that is a one inch band of shale, followed by six inches of coal. The reason for abandoning the work there is that the coal is not at all usable, and the entry or level is carried as a prospect far beyond the limits of the coal that has any value at all. At the face of this 3rd north entry the strata are dipping twenty-two degrees to the west. I should say that this place which showed the coal of such very poor quality is by map measurement about seventeen hundred feet in from the main slope. A further evidence of the uselessness of the material is that the soft clay has been reduced to a putty-like mud from the infiltrating waters. I then returned to the main slope and descended to the 5th north
1227 entry. The inclination of the slope, which I took to represent the true dip of the beds there through the

length of that slope down to the 5th north entry, is twenty-one degrees to the west. Now, in the 5th north entry I found an explanation of the surprising condition shown by the map, of a long entry being driven with absolutely no rooms turned off; it is purely a prospect entry and no rooms have been turned and no coal taken.

Q. Is there any coal there to take?

A. No, sir. There is coal there, but very poor. The coal along the entry is generally broken; it is all of the bastard coal kind. There is a marked thinning out of the bed as you go from the main entry toward the face. There are a number of faults encountered there, small faults. The entry at the date of my visit was about eleven hundred feet in from the main slope and carried out the usual width, nine feet, and has been run in the formation without any weakening by the turning of rooms, and yet the room is caved down and the entry is in a very bad condition; in other words, that single nine foot tunnel has been driven on the level right into the solid formation there and is unable to support itself; the tunnel, itself, before any rooms are turned off any coal taken out, would have to be timbered in order that the roof may be kept up. Even if the coal were there in workable quantities and of valuable quality it could not be mined except at very great expense. For the last one hundred and fifty feet of that entry the caving is so bad that it was necessary to clamber up and over the material half filling up the entry. At the face of the 5th north entry, approximately eleven hundred feet in, I found the strata dipping twenty-two degrees to the west and there measured a section which is identical with section X. on defendant's exhibit 17. It shows one foot, two
1228 inches of bastard coal above, then a six inch band of clay shale, and two feet of a lighter colored shale, which, through the infiltrating waters, has been reduced to a gray, putty-like mud, and then two feet of bastard coal, and then another layer of light, soft shale and another foot of this broken coal; in other words, we have there four feet, two inches, only one of coal of any quality, and none of that is of any because of its dirty condition and its generally broken up state. I deemed it entirely unnecessary to go into any other of those northern entries after examining those two; the answer to my question was quite satisfactory to me. I then returned to the main slope and descended to the 5th south entry, the 5th south being the deepest working or entry in the mine, and being turned off at a considerable distance down the slope from the 5th north. I found at the junction of the 5th north and the main slope fairly good coal as shown by my section taken there, the section being taken just inside the entry. The

section is identical with section W. on defendant's exhibit 17. The general dip of the strata there is twenty-two degrees to the west. I found one bench of seven feet, three inches, of coal immediately above which is a one inch layer of shale, that followed by three feet of bastard coal. The floor is of shale. I traversed the 5th south entry, taking a section at the first room in that entry, which section corresponds to and is identical with section Y. on defendant's exhibit 18. This section shows a bench of six feet, one inch, of coal, beneath which I found three inches of bone, six inches of arenaceous shale, then another bench of three feet, two inches of coal, making a fairly promising coal deposit at that point, but as I passed along the entry I found the coal being replaced by a heavy, soft, black shale, which first become pronounced
1229 at a point about two thousand feet in from the main slope. This shale seam is of variable thickness, and at the present face of the entry is fully three feet in thickness.

Q. Now, Doctor, at that point I would like to correlate the underground working that you are now describing with the outcrop at the surface; you are describing about two thousand feet in on the 5th south entry of No. 4 mine, are you not?

A. Yes, sir.

Q. That would bring it in the southerly portion of section 17, would it not?

A. The southerly portion of section 17 would be correct.

Q. And how is the outcrop immediately east of this working at the surface?

A. The outcrop there is the best and most promising outcrop along the entire horizon, excepting the very mouths of the mines themselves.

Q. Very well, sir. Now, you may proceed.

A. Resuming my reference to that thick, black shale—the thick band of black shale, it is a clear grading there of the coal into shale; it is not due to any shifting of the coal stratum; it is very evident that what is coal, as you go further north toward the main slope, is represented there by shale only, that is, throughout the thickness of that band, three feet at the face; strictly comparable to and identical with what we find along the crop, that sometimes the coal would be found in one of the pits, and then a short distance off we had there shale taking place of the coal. The coal is all represented, but not by coal. At the face of the 5th south entry which at this time is about twenty-nine hundred feet in from the
1230 main slope, there is very little coal. My section there taken is identical with section Z. on defendant's exhibit 18. The strata are shown in their orderly position with a dip of twenty-three degrees to the west and I find immediately

under the shale roof three feet, three inches of this soft, black shale, beneath which I have three feet, ten inches of coal, and then, with one inch separation of shale, another two feet, nine inches, of coal, and then with another three inch separation of bone, I have still more coal, therefore there is plenty of coal there, but the thickness of this shale replacement is increasing and the coal is entirely unworkable because of the fact that this shale above is of the nature called by miners a following or a clod; it comes right down with the coal; it is black and it is mixed in with the coal and I regard the separation of the coal from this black, overlying clod of shale as impossible, except by an expensive process of picking or washing. The mining there has been entirely abandoned and you will see that for the last one-third or nearly half of that entry not even a room has been turned off. Returning then to the main slope I descended into its limit; at the present bottom of the main slope the strata are found dipping twenty-five degrees to the west and I took a section thirty feet below the first crosscut below the 5th south entry, which section is identical with section A. 2. on defendant's exhibit 19. It shows there three feet, ten inches of coal, except a six inch band of bastard coal above, and demonstrates the continuation of the dying out of the coal as you go down on it. A very noticeable feature there is this roll at a greater steepness as you go down; it would be extremely interesting to the geologist to have them push on and find whether there is a permanent increase
1231 of steepness of dip as you go down. We have in the upper parts a twenty-one degree dip, but here we have a pronounced dip of twenty-five degrees.

Q. It might be somewhat disastrous to Mr. Veatch's contours, might it not, as he has them here on his exhibit?

A. He would have to change them if the facts are changed, which, of course, he does not know until such disclosure is made. The map does not show a 6th south entry, but I should add that, not content with this extensive and hazardous prospecting now done, they are now working on a 6th south entry, that is, turning it off. It is in solid rock; it has not reached the coal there yet; the sandstone there is very rich in fossils. Below this beginning of a 6th south entry, in which no coal is shown at all.

Q. Is there any coal horizon or any coal seam?

A. They are swinging around so as to reach the coal; they have not reached it yet; no coal at all is shown in that thus far. They have carried the slope down somewhat further, and in what is called the 6th south, back entry, what will be the back entry of the 6th south, if they run it, I got a section which is identical in my notes with that shown as section A. 3. on defendant's exhibit 19. It reveals four feet, six inches

of coal with one foot, eight inches, of soft, black shale above it, and above that again one foot, four inches, of coal with a shale roof. The mining of the coal at that point is at the present time unprofitable on account of the falling of this shale roof with the coal.

Q. This is the termination of the main slope, is it, of No. 4 mine?

A. Yes, sir. Now, in the main slope of that mine, just below this recently begun 6th south, back entry, there is
1232 a light colored shale appearing right in the coal as I came up to it, but when first encountered it was scarcely thicker than a knife edge, coming in as a lens, and it widens so rapidly that twenty-five feet further down it is fully two and a half feet thick, right in the coal, demonstrating within that short distance the absolute uncertainty of the continuity of clean, thick, workable coal. That, I think, terminates my description of the workings in mine No. 4.

Whereupon further hearing was continued until 7:30 P. M. of this day.

1233 7:30 P. M.

Direct Examination of Dr. Talmage Resumed

By Mr. Kelley:

Q. Dr. Talmage, you had concluded at the afternoon recess the description of mine No. 4. Northerly on the outcrop what was the next mine that you visited?

A. The next mine north would be mine No. 2.

Q. And in a general way will you tell us first what is indicated to you by the mine map of mine No. 2, referring in your description to defendant's exhibit No. 8.

A. The general description of No. 2 has already been given, illustrative of the fact that the workings are very extensive on the north side of the slope and comparatively small on the south side of the slope.

Q. I remember now. Will you give us, in a general way, as briefly as you think proper, a description of your line of travel, the measurements taken and the conditions found in this mine.

A. The line of travel is indicated on the exhibit named by the red crayon line. It will be observed that we descended from the mouth or portal to the 4th south level or entry, and traversed that level to its southerly termination. The first section measured showing the condition of the coal in that entry was at the point indicated by the first red cross in No. 4 south entry or level, taken forty-five feet inside the avenue, and this shows the section presented in defendant's exhibit

No. 9, section A. The strata at that point are dipping seventeen degrees to the west. The section reveals three feet,
1234 four inches, of coal, then with a bony band succeeding, we have seven inches more of coal and another band of bone, six inches more of coal, another band of bone, one foot, eleven inches, of coal, another band of bone, and three feet, nine inches of coal. This point, described as forty-five feet inside the avenue, is about two hundred feet from the main slope.

Continuing southerly, I noticed at room 1, which is about twenty feet beyond or southerly from the point at which this section was taken, the dip there varies slightly from that red, being sixteen degrees. Continuing then along this No. 4 south entry we took another section at room No. 11, as indicated on the exhibit named. This section is identical with that shown on defendant's exhibit No. 9, section B.; it shows two feet, six inches of coal immediately under a shale roof; then a bony band and one foot, eleven inches, of coal, another band of bone, two feet, seven inches of coal, another band of bone, four feet, seven inches of coal. The shale there is a hard floor shale, and the roof is a shale roof which will not stay up; it falls with the coal, constituting what the miners call a clod or following and seriously lowering the quality of the coal.

Q. By its intermixture?

A. By its intermixture. The point at which this was taken at room 11 is by map measurement about eight hundred feet in from the main slope, that is to say, southerly from the main slope. The rest of the way through that entry revealed the fact that the coal was continually thinning as we went toward the south, and the clay floor was becoming more and more unfavorable, giving rise to the feature known as squeezing or swelling of the floor, making it very difficult to operate.

The next section taken there was at room No. 25, indi-
1235 cated by the third cross upon this diagram or plan, on which, however, the room itself is not shown. This section is identical with that shown on defendant's exhibit No. 9, section C.; it demonstrates a continual thinning of the coal and an increase in the shaley material overlying the coal. The point at which it was taken is about sixteen hundred and fifty feet southerly from the main slope, and the strata, including the coal, at that point are dipping to the west at an angle of eighteen degrees. The layer of clay which the section shows—clay shale—immediately beneath the arenaceous shale roof, was at the point at which it was measured two feet only, but this particular clay layer thickens to four feet within twenty feet of the place of measurement.

Q. Is that within the coal layer?

A. Yes, it is part of the following that comes down with the coal, being immediately under the roof of the working. The same condition of diminishing coal continues, and the next section taken demonstrates this. It was taken at a point one hundred and twenty feet beyond, that is, southerly, from room 29 on this level. The section is identical with that shown on defendant's exhibit 9, section D., at about two thousand feet southerly from the main slope. At this point the strata dips eighteen degrees to the west. But two bands of coal are shown, separated by a six inch layer of shale, the upper band of coal being two feet, six inches, and the lower band of coal two feet, seven inches; the shale floor is very thinly bedded shale, and is readily broken up. The room, which consists of a light colored shale, through which numerous plant remains are found, is a typical clod or following, coming down with the coal right along. The deterioration of the coal continues toward the south,
1236 and the section taken at a point fifty feet northerly from the last slant in this No. 4 south level is identical with the section shown on defendant's exhibit 9, section E. The strata at this place are dipping eighteen degrees westerly and I found under the shale roof two feet, five inches of coal, then a series of shale and bone beds, and a lower bench of three feet, eight inches of coal, all badly broken and dirty; it is the bastard coal at this point, which is about twenty-two feet southerly from the main slope; the upper coal alone is of usable quality, and the whole seam is commercially worthless. Now, that band of bone coal which lies between the upper and lower benches of coal shown in the section, immediately between the shale above and the shale below, is, at the place measured, eleven inches in thickness; but within ten feet along the entry from that point of measurement, that particular band is two feet thick, this band of bone thus thickening or widening within ten feet from eleven inches to two feet, grades into a shale, and within a few feet further becomes an argillaceous sandstone, light in color. The coal above this band maintains fair uniformity throughout this zone of change, the coal below becomes granular and worthless and remains so clear to the face of the entry.

The next section taken in that entry was at the face or as near the face as we could get; the last two or three feet were simply marked by a pile of material, but it is practically at the face, and this section is the same as that shown on defendant's exhibit No. 9, section F. The strata at that point dips between seventeen and eighteen degrees to the west. The section shows an upper band of one foot, nine inches of coal, then a band of bone and another eleven inches of coal, then two feet, three

inches of shale and sandstone, and another three inches
1237 of bone, then one foot, six inches of coal, then some more shale and some more coal, broken. The entire roof comes down with the coal, and constitutes a clod or following. From this point near the face we descended through room 36, that is, we descended into the back entry, and thence down through room 36 to the 5th south level or entry.

Q. That room is the most southerly of the rooms that have been projected up from the 5th south, is it not?

A. Yes, I think it is; that is true. We descended through this most southerly room, or room 36, and examined the coal at the face of this 5th south entry or level at a point which, according to the map, is twenty-three hundred and seventy five feet in, that is, southerly, from the main slope. The section there taken is the same as that shown on defendant's exhibit 10, section G. It reveals several bands of coal with numerous bands of shale and one thick band of sandstone two feet, one inch thick, dividing the coal above from the coal below, rendering the coal itself worthless. By way of illustration of the rapidity with which these bands may change and the uncertainty as to the uniform condition of the coal, two sections were taken, only about nine or ten feet apart, one on the south side of the room named, that is, room 36, at its junction with the 5th south entry, and the other one just across the room at the north side of room 36. The sections are shown on defendant's exhibit 10, and my notations and the sections made by me in my notes are identical with those shown on that exhibit. The point to be noted there is that on the south side of the room we have two inches of shale overlying ten inches of argillaceous sandstone, and this overlying five inches of grayish shale, there being coal above and
coal below this band of shale and sandstone taken as
1238 one. Just across the room, we have seven inches of shale which is almost bone coal, and one foot, two inches of black shale.

Now just across the 5th south entry from the mouth of this room 36, which is as the map shows, at the cross-cut leading directly down to the back entry, and which we traversed on our way to the 6th south, that argillaceous sandstone is two feet, seven inches in thickness. We descended by the route indicated to the 6th south entry, obtaining, by the way, on the way down, a long sight as to dip and strike, and revealing for that long distance a dip of eighteen degrees to the west with a strike of north, nine degrees east.

Q. Was that also the most southerly room to which you could descend?

A. It is the most southerly room but one, and the most southerly through which we could go down, the other being

filled up. We descended through room 29 from the 5th south to the 6th south; from the 5th south back entry to the 6th south entry.

Q. That is about seven rooms more northerly than the room you descended on the upper level?

A. Yes; there are not so many rooms on the 6th south entry, and the last one is so completely filled by the falling of the roof that we could not get it. We got down through room 29, as correctly indicated on the map, noting by the way, a great variation in the argillaceous sandstone bed. On this 6th south level at a point sixty feet beyond, that is to say, inside of or southerly from room 30, and as near the face as we could get, as we could find a well exposed wall of coal, a section was taken; this was in reality about one hundred feet back from the face proper, and about two hundred and twelve
1239 feet in or southerly from the main slope. This section is identical with that shown on defendant's exhibit 11; it reveals two bands of coal separated by several feet of sandstone and shale and reveals the utterly worthless condition of the coal at that point. Having sent someone ahead to test the possibility of our getting down to No. 7 that way, and being informed that it was entirely blocked up, we retraced our steps to No. 4 south level and then made our way out to the main slope and descended the main slope to the 8th south.

Q. I understand you sent someone down to see if you could get to the 7th south? A. Yes.

Q. And you could not? A. No.

Q. Why didn't you go back to the 6th south?

A. It was reported that that also was filled, and that the only way of getting back was to go back by the way we had come. Now, having made our way back to the main slope and started down, we discovered that there at the slope the roof was falling, and had fallen until at the junction of the main slope with the 7th south in there, or very close to that point, the roof had fallen, revealing fully twelve feet of clayey sandstone above the coal, and all of that had come down. Between the 7th south and the 8th south the same conditions exist; large masses have fallen from the roof. Between the 7th south and the 8th south on the main slope the strata are found dipping eighteen degrees to the west. We then entered the 8th south entry, and took a section at room 1 on that entry, which section is correctly shown on defendant's exhibit
12, section H. The strata there have the same general
1240 dip, eighteen degrees as measured. The section shows a shale roof and a shale floor with three bands of coal between, separated by shale, as good a condition as the coal anywhere there shows. Then we passed into the 8th south entry further, and took another section at room 12, which

section is correctly shown by defendant's exhibit 12, section J. The dip of the strata is eighteen degrees to the west. The section shows a shale roof and a fairly hard shale floor, with three bands of coal separated by bone and shale. The upper band of coal is crushed and dirty and worthless; the other two bands are of better quality, except that bone occurs at the bottom of the lower band.

The next section was taken in that entry at room 15, and is correctly shown on defendant's exhibit 12, section K. That section reveals again the three bands of coal separated by bone and shale. The strata there are dipping also eighteen degrees, and a fairly uniform condition maintains between these sections, a very short distance apart.

The next section was taken at room 20 on that entry; that would be about one thousand feet in from the main slope, and this section is correctly shown on defendant's exhibit 12, section L. This shows also the three bands of coal, but the central band, the middle band of two feet, nine inches thick, has become broken, exceedingly soft and dirty and bastard coal and useless; the middle one is separated from the upper one by two feet, six inches of bone, sandstone and shale, thus showing the very greatly deteriorated coal, the change occurring within that short distance. The dip of the measures at this point also is eighteen degrees.

1241 The next section taken was at the present face of the 8th south entry, which, by map measurement, is about eighteen hundred and twenty feet in from the main slope, that is, south from the main slope. The section is correctly shown on defendant's exhibit 12, section M. The same dip is found, on measurement, eighteen degrees. The sections shows three bands of coal with argillaceous sandstone and shale increasing and the coal is entirely worthless for mining purposes. No rooms have been turned off for the last four or five hundred feet and the work has been entirely abandoned. It will be noticed that the face of this entry is not nearly so far south as the face of the entry next above it, and thus the working is being carried to a smaller and smaller or less and less distance from the main slope with each descending level.

We then returned to the main slope and descended to the 9th south entry. Entering the 9th south entry we took a section at the mouth of room 1, which is approximately two hundred feet from the main slope. This section is correctly shown on defendant's exhibit 13, section N. The strata at that point dips seventeen degrees to the west. The strike is north nine degrees east. The section shows a shale roof and a shale floor with three bands of coal separated by bone and shale. The middle band is soft, dirty and worthless; the other two

bands of coal, one of two feet, six inches and another at two feet, nine inches would be good coal if it could be gotten out in clean condition; it, however, is very difficult to do that.

The next section in that entry was taken at the mouth of room 5, as indicated upon this exhibit, about four hundred and twenty-five feet south from the main slope. This section is correctly shown on defendant's exhibit 13, section O. It reveals three bands of coal as before, the middle one, however, being only eight inches thick and of bastard quality.
1242 The upper one is one foot, eight inches and is very clayey and shaley; the lower one of two feet, five inches is good coal in and of itself, if it could be removed separately.

The next section taken was at the present face of the 9th south entry, which face is about thirteen hundred and sixty feet in from the main slope, and since no rooms were turned off there, I may add that that is about one hundred and eighty feet southerly from room 18, the last room. This section is correctly shown on defendant's exhibit 13, section P. The section reveals only two bands of coal, the middle band having entirely disappeared now. The lower band of coal is fairly good in quality, and a three foot layer of fasil, argillaceous sandstone has developed there by the widening of the different bands before noted. The dip at the point is eighteen degrees to the west. There is no workable coal there at all. This is the lowest entry or level on the south side.

Returning to the main slope we continued down the main slope to its face, and explored the 11th north entry, which is the lowest entry in the mine. The general inclination of the main slope from the 9th south to the 11th north is twenty degrees. About midway between the 10th and 11th north entries a clay shale body comes in and increases as we descend the main slope. At the mouth of the 11th north entry, at the junction of the 11th north entry with the main slope, a section was taken which is correctly shown on defendant's exhibit 14, section Q. This lowest level in the mines is approximately forty-four hundred feet down from the portal or entrance to the mine. At this point we have three bands of coal again shown, separated by, in one case, two feet, three inches of clayey shale, rendering mining for coal practically impossible. At the point at which the section was taken
1243 the strata are dipping between the present eighteen and nineteen degrees westerly. The present face of the 11th north entry is about five hundred and twenty-five feet in from the main slope, that is, northerly from the main slope, and at that place a section was measured, which section is cor-

rectly shown on defendant's exhibit 14, section R., which reveals two bands of coal, the upper one, two feet, eight inches in thickness and the lower one four feet in thickness, and these six feet, eight inches of coal would be workable were they not separated as they are, by two feet, five inches of sandstone and shale, rendering working of the coal seam as a whole, impracticable. The shale roof and the shale floor are there noted, and an eighteen degree dip to the strata.

Below the 11th north entry the main slope continues for about one hundred and fifty feet further on the dip, but no workable coal is found there. I note, though, I presume I cannot testify to it, that I inquired and learned that a drill hole had been put up in the roof near the bottom of these slopes, showing the great thickness of the clay and shale above, but no coal.

Q. That is merely hearsay?

A. Yes; I inquired about it.

Q. Does that conclude your investigations of No. 2 mine?

A. Yes, sir.

Q. From No. 2 mine, Doctor, where did you go?

A. From No. 2?

Q. Well, I mean what was the next mine that you examined?

A. I am not taking them in the order that I examined them. The next mine that I examined was No. 4, which I have already testified to, but the mine which I examined before we went to No. 2 was No. 1.

1244 Q. Well, you have described No. 4 and No. 2; you can now give us the investigation that you made of No. 1 mine.

A. I visited No. 1 mine on April 7th, and devoted the whole day to its examination. An examination of the map led us to suggest certain parts of the mine to which we wished to go, if we did not find time to go to all the levels, and we first explored the 2nd north entry.

At the intersection of the 2nd north entry with the north return airway, that is, the overhead return, a section was taken which is correctly shown on defendant's exhibit 6, section No. 1, and defendant's exhibit No. 7, section No. 1. This reveals a fairly good deposit of coal, the upper bank or bench being six feet, eleven inches, followed by several seams of bone, and then one foot, three and a half inches of coal. The strata at that point dip thirteen degrees to the west, and that same dip is found continuing in that entry, and a measurement at room 17 showed the same thirteen degree dip. The bony bands or bands of bone coal are increasing as you pass along that entry toward the north. A section was taken at

the cross-cut between room 19 and 20, in this second north entry of No. 1 mine, that is, the back entry cross-cut, which section is correctly shown on defendant's exhibit 6, section No. 2. It shows really six bands of coal, the biggest being four feet, three inches, separating layers of bone; they are becoming more numerous as we extend toward the north. The strata there dips fifteen degrees westerly, the exact strike being north three degrees east, true. In all cases these readings of strikes are true and not the magnetic direction.

The next section in this 2nd north entry was taken at cross-cut to room 39. This section is correctly shown on
1245 defendant's exhibit 6, section No. 3, which shows the thickest layer or band of coal as four feet in thickness, above which is another two feet, two inches, with a shaley, bony band between, below which is another one foot, nine inches, with a shale band between, and below that are other bands of shale and coal. The bottom of the shale immediately underlying the four foot band of coal is really the cross-cut to room 39; all below that is worthless coal because of the impossibility of removing it without the shale and sandstone admixture.

Between the places at which the two sections last noted were taken, there is a marked heaving of the floors; the soft clay which is called by the miners there a fire clay has yielded to the pressure on either side and has been squeezed up until at one place there was evidence of the track having been carried up nearly half way to the roof. At the place of the last sections the strata were found dipping seventeen degrees to the west.

Now, just beyond the place of the last section, the entry turns westerly, and continues as a single entry, passing from this lower bench of coal which is floored by the shale band on which the cross-cut is run, to the upper coal. The shale roof of the upper coal breaks and falls, and in room 43, for example, I noted that thirty-two inches of shale had caved down above the coal.

I then passed on to the face of the 2nd north entry, which is sixty feet beyond or northerly from room 51 on that entry. The face shows the upper bench of coal. The section is correctly shown on defendant's exhibit No. 6, section No. 4. It shows one foot, eight inches of coal, separated by shale and bone from a lower bench of three feet, eight inches of
1246 coal with a shale floor. At the face the strata are dipping sixteen degrees to the west, and the roof is slacking off and falling rapidly; all work has been evidently long abandoned in this entry.

We then returned to the main level, the main slope, and went down to the 7th south entry. It may be interesting—I don't know whether you want it or not—to know that about twenty inches above the top of the upper coal seam in this 7th south entry, the shale becomes wholly fossiliferous; there are a number of fossils there, and it is known locally in the mine among the miners at the Oyster Bed. A section was taken on the main slope at the junction with the back entry to the 7th south, in other words, at the junction of the main slope with the 7th back entry. That section is correctly shown on defendant's exhibit 7, section No. 2; it reveals a good thickness of coal with bony bands dividing it up; it is, however, a workable, valuable coal, but becomes somewhat dirty near the shale floor. A section was taken on the main slope opposite the 10th south level, that is right at the electric pump station. This section is correctly shown on defendant's exhibit 7, section 3. The beds at this point are dipping eighteen degrees to the west and have a strike of north nine degrees east. The section shows three bands of coal the upper and thickest band being four feet, seven inches, but this being very dirty by the intermixture of sand and clay and bastard coal. The coal, I take it, is workable at that point.

We followed the 10th south entry as far as it is open. We saw by the map that this entry extended much further than we were able to go. The squeezing and crushing down through the removal of the coal there, in spite of the pillars
1247 which have been left, has been such as to fill up the entry completely, so that it is a solid rock to all appearances, and will have to be blasted out if the entry is reopened; this tight filling has been removed up to a point between room 38 and 39, beyond which we could not go. All along this entry the coal is badly crushed and squeezed; the pressure has been so great there that the coal has broken up into long splinters. I gathered splinters as long as this red pencil from that area of crushing, and the track is badly deformed at intervals all along the entry, and the clay floor is badly squeezed and heaved, as it is called. I had not time to make an accurate survey and could not locate myself upon the surface with strict accuracy, but I take it that I located myself with reasonable accuracy and I assumed that the overburden, the overlying material where this crushing has taken place, is not more than seven hundred and seventy-five feet in thickness.

Q. And is that in your judgment, about the limit of the overburden that can be sustained in mining operations there?

A. It certainly is demonstrated to be beyond the limit of overburden that can be sustained by the mine roof that you have there, and it is typical, hard shale roof. The coal left

in the pillars along there has been crushed down; in other words, the pillars of coal left in that entry have been carried down into this soft shale constituting the floor and the layers beneath the immediate floor, fully three feet.

Q. By means of the pressure?

A. Pressure above and the soft material has come up into the entry, being squeezed up by the downward pressure. The map shows that this entry ran thirty-one hundred feet further south than we were able to go. The shale separation between the upper and lower benches of coal thins toward the
1248 south and thickens toward the north in this entry.

Q. Just there, in connection with that, what have you to say as to the amount of coal which was left standing as pillars to support this overburden?

A. I made an estimate there, simply by looking at the map and roughly considering the different volumes, and I agree with what I heard in this room, that fully sixty-five percent of the coal has been left.

Q. No, notwithstanding that, you say the entry has been closed for thirty-one hundred feet southerly, according to your information?

A. Well, I did not say that; I dont know whether it is closed from there all the way through; the probabilities are that it is.

Q. But it is closed so that it is inaccessible?

A. Yes, sir.

Q. What is your judgment, Doctor, as to the possibility of recovery of the coal which has been left there in the shape of pillars?

A. In this particular case, all beyond this point for thirty-one hundred feet has been entirely lost.

Q. Have you any idea as to generally, throughout that mine how much coal it was necessary to leave?

A. Yes, I estimated from sixty to seventy percent. of the coal has been left; in other words, only from thirty to forty percent. has been taken out.

Q. Have you any judgment as to the amount of recoverable coal which still remains?

A. Not knowing the details of coal mining, I am not perhaps able to make anything more than a rough estimate of that.

1249 Q. Very well, Doctor, I will not ask you for that. You may proceed.

A. That finished my examination of mine No. 1.

Q. With the conclusion of your examination of mine No. 1, was your underground investigation completed or your conclusion of these mines that you have testified to?

A. I think I have testified to all the underground observations made.

Q. What was the effect on the opinions or conclusions which you reached from your examination of the surface, when you saw the information disclosed by the underground workings?

A. The information disclosed below ground, taken in connection with what had been observed and what was observed later along the outcrop, convinced me that there is no certain and ascertainable relation between the outcropping coal and the conditions which may be encountered even a short distance beneath; furthermore that the very steep dip of the strata there, resulting necessarily in a great increase of overburden for a comparatively short distance of working, would make the workable distance, or the distance through which workings could be carried very short, as the roof of the coal is evidently not able to bear what would be regarded as a very moderate overburden; furthermore, that in the mines in every case, the fact that there is a limit to the workable coal has been very clearly demonstrated.

Q. Now, as a result of your whole investigation, have you any opinion to express as to whether the lands in controversy in this action, in view of all the information which it is possible to obtain with reference to them, should be classified as coal or non-coal lands? A. I have.

1250 Q. What is your opinion?

A. I am of the opinion that no one part of any one of these sections in controversy could be classed as coal land within the meaning of the term as I understand you to apply it, lands containing coal offering a fair promise of profitable extraction or a possible extraction on a commercial basis.

Q. Now, right there, Doctor, in order to have the record clear, you understand that under the acts of Congress which permits the acquiring of title to parts of the public domain for certain purposes, lands are classified as mineral and non-mineral lands? A. I so understand.

Q. Is there any scientific theory for such a classification?

A. [They] is none; that distinction is purely a legal one.

Q. Is there any land or part of the earth's crust that is non-mineral, essentially?

A. Applying the term mineral and its opposite term, non-mineral in the technical sense, of course all land is mineral; it is made up of rock material and rocks are aggregations of minerals.

Q. And a mineral is what?

A. A mineral may be defined as any inorganic substance of definite chemical composition naturally occurring in the crust of the earth.

Q. And further, I want to ask you is coal technically mineral or non-mineral?

A. Coal is classed as a mineral in the sense of its being part of the earth's crust now.

Q. In its origin, however?

1251 A. Coal is of vegetable origin.

Q. So that when you talk of mineral or non-mineral land, can you have any other than the arbitrary distinction resulting from legislation upon the subject?

A. No, indeed; that is the only sense in which I could apply the term.

Q. Now, is it with reference to any such division and also including coal as a mineral that your answers have been given? A. It is.

Q. Aside from the question of any legal classification, can you express any opinion, or can any definite opinion be expressed as to whether or not there is coal beneath these lands?

A. Yes, the opinion can be expressed that, inasmuch as coal is outcropping immediately to the east of these lands, and the strata are dipping to the west, that some coal may be under the land, precisely in the sense in which you might say that these lands are stone lands, because the Oyster Ridge sandstone dips right down under them. How far that extends I don't know, but as I have examined the Oyster Ridge sandstone on the east, I find in places that it is a good building stone. Now, the land is coal land only in the sense that the coal measures dip down in the direction of that land; as to how far they extend I know not, and I think no one can express anything stronger than an opinion as to any continuation.

Q. Is that also true as to whether or not, would you hazard any opinion as to whether or not there was any quanity of coal represented in the coal measures beneath these lands?

A. No, sir, I could not.

Q. So that, if for a practical purpose, in order to ascertain whether or not there was any coal beneath these

1252 lands, what would it be necessary to do?

A. You must explore the land either by shaft or slopes from the outcrop down, or by drill holes.

Q. And would that, in your judgment, entail a large expenditure of money? A. Yes, sir.

Q. Would it be a sufficient speculation to justify one in an ordinarily prudent manner of seeking the truth, to incur that expense?

A. I should certainly advise any friend of mine, convinced as I am since I made the examination, not to go to the ex-

pense of drill holes in view of the uncertainty of the coal occurrences and the demonstrated impossibility of mining the coal under any considerable overburden, even if it be there.

Q. As far as this region has been prospected by drill holes, in addition to the outcrop and the underground examinations you have made, and as disclosed upon complainant's exhibit No. 310—I refer to the section of diamond drill holes introduced by Mr. Veatch—is the general opinion which you have formed sustained? A. It is.

Q. Do these drill holes, in addition to the other evidences we have of the irregularities, show similar irregularities in the coal measures?

A. They do, and in each case the coal found occurring in the drill hole sections is at the proper place, approximately, by calculation as to where that coal would be cut by the drill.

Q. Have you obtained the results of the calculations made from taking the dip of the vein at places where these drill holes should encounter the vein?

1253 A. I have.

Q. And are you able to correlate them so as to show the main bed at different places? A. I am.

Q. And does it show a variable thickness? A. It does.

Q. Now, in reference to one of these drill holes located on section 4 in township 20 north, range 116 west, I will ask you to say whether or not you find the main bed exposed; I believe it is No. 2.

A. Drill hole No. 2 is on the northeast quarter of the northeast quarter of section 32, isn't it?

Q. That is not the one I mean.

A. Drill hole No. 4 is on the southwest quarter of the southwest quarter of section 4, township 20.

Q. That is the one I refer to. Where does the main seam of the Kemmerer bed occur?

A. By careful calculation, the following is found to be the case—shall I give all the data?

Q. Yes, with reference to this main seam; I don't care about the stratification above.

A. You don't want the details as to the calculation, but just the result.

Q. Well, you may tell me how you arrived at it.

A. From the outcrop of the coal measures directly east of this drill hole, it is six hundred and sixty-five feet distant; the top of the hole is one hundred feet vertically above the coal outcrop, the drill hole being above the outcrop in this particular case, that is, above what you call No. 5 mine. The dip of the strata there is nineteen degrees on an average.

125- Now, by calculation, that coal ought to be intersected by that drill hole at a distance of three hundred and

twenty-eight feet below its top, and the only coal of any thickness that was found is at three hundred and twenty-six feet below the top of the drill hole.

Q. And how much coal is found there?

A. Two feet.

Q. Now, are you quite sure, Doctor, that the main seam of the Kemmerer bed at this particular point was not thirty feet above the present level, and that its place has been substituted by a deposit of mud?

A. The Kemmerer bed above this drill hole?

Q. Yes. A. On the hill?

Q. Yes.

A. Why, no, it could not be, because the drill hole is west of the outcrop.

Q. Well, I just wanted your opinion about that; that is your opinion, is it? A. Yes sir.

Q. Now, in drill hole No. 1, where does the main seam occur disclosed on this exhibit?

A. The only big seam of coal there is at a depth of two hundred and sixty-two feet beginning from the top of the drill hole.

Q. Have you correlated that so as to be able to testify whether or not it is the main seam? A. Yes, sir.

Q. And at this particular point what is shown by the drill hole in the way of stratification?

1255 A. The drill hole shows a seam of coal extending from two hundred and sixty-two feet to two hundred and sixty-five and a half feet, and that is underlaid by one foot, six inches, of what is called here slate, but what I should take to be shale, and then below by one foot of sandstone, and that is followed by one foot of coal.

Q. So that you have in the entire bed there or seam, four feet, six inches of coal, separated by these stratifications that you have described? A. Yes, sir.

Q. Would that be workable? A. No, sir.

Q. In No. 2, have you correlated the seams?

A. I would simply say, then, by calculation that I find the main seam should be encountered two hundred and sixty feet below the top of that drill hole.

Q. And where is it encountered?

A. Two hundred and sixty-two feet.

Q. In No. 2 hole have you correlated the main seam?

A. Yes, and by calculation the main seam should be intersected by that drill hole one hundred and seventy-five feet beneath the top.

Q. And what does the drill hole show with reference to the seam?

A. The drill hole shows a seam of coal one foot, six, at one hundred and seventy feet beneath the top.

Q. There is a coal showing here eighty-seven feet below the surface, six feet of coal in this drill hole; have you correlated that seam? A. No, sir, I have not.

1256 Q. You have not correlated it with the O. O. seam?

A. No, I have not; in fact, I have not had this section of the drill holes in my possession until today. I made the calculation without reference to that. Let me see, that would be—I can calculate it.

Q. Well, that is immaterial; it is not the main seam?

A. No, it cannot be the main seam.

Q. In No. 3 have you correlated the main seam?

A. Yes. In No. 3 the main, Kemmerer seam should be intersected by the drill hole at a depth of one hundred and sixty-five feet beneath the surface.

Q. Where do you find it?

A. The actual boring here shows the seam at one hundred and sixty-four feet beneath the surface.

Q. And how much of a seam?

A. Four feet, ten inches.

Q. Doctor, have you examined the field in question with reference to the occurrence of faults? A. Yes, sir.

Q. Have you discovered any?

A. Small faults in the underground workings, as I have indicated in my testimony at different times.

Q. Do you know what a strike fault is? A. Yes, sir.

Q. Please define it.

A. A strike fault is a fault running in the direction of the strike of the strata, therefore, running at right angles to the direction of the dip of the strata.

Q. Now, are you able to say whether or not there are any strike faults running in a somewhat parallel direction

1257 with the general line of the outcrop of the horizon of this coal bed?

A. No, sir; I have seen no evidence of that thing.

Q. Can you positively determine from the surface examination whether or not they exist?

A. No, sir; if there were any faults there of many thousands of feet throw, and comparatively recent, there would be some surface indication; but there may be faults of considerable throw—

Q. What do you mean by considerable?

A. Oh, there may be faults of several hundred feet throw along there, and with that soft material the surface indications may have been entirely covered up. Many of the great faults of comparatively ancient occurrence are not revealed on the surface at all by any scarp or other bench. Some of the great

faults in the British Isles, for example, have been made known, or their existence has been indicated, by the material brought up by burrowing, boring animals, there being nothing on the surface at all, erosion and filling having resulted in an entire obliteration of any surface indication of the fault.

Q. That boring being the disclosure of different materials?

A. Of different materials, on the opposite sides of the fault plane.

Q. Now, would you agree with Mr. Veatch in his statement that a strike fault of more than one hundred feet could not exist in that area without being disclosed?

A. No, I could not agree with that, unless the strike fault of that extent were so exceedingly recent that there would have been no time given for the filling in.

Q. As a matter of fact, to the west of this, you do have a section of great disturbance, do you not?

1258 A. Yes, you have the pronounced Absaroka fault, running.

Q. Is that in parallelism with the outcrop of this horizon?

A. Practically parallel, yes, sir.

Q. Is it true that if faulting occurred there of any considerable extent, that that would probably be sympathetic?

A. Most assuredly so, and by sympathetic I mean running parallel to the main fault.

Q. Now, in the discussions here, two terms have been used that I do not think have been fully defined. A syncline, what is that?

A. The syncline is the downward throw of the strata, forming what may be called a trough.

Q. Which may be somewhat U shaped?

A. It may be U shaped or V shaped.

Q. What is an anticline?

A. That is the upthrow, forming a saddle in section. Do not understand that the syncline is indicated by a valley and the anticline by a hill, because we often find that the synclines are on hill deposits and the anticlines are in the valleys.

Q. Would you say that a classification of these lands which designated them as of a coal character, under the meaning of the law, to a vertical depth of three thousand feet of overburden would be reasonable or rational or feasible?

A. I don't think it would be, and would regard it as an utterly impracticable classification.

Q. You think the Government would not be disturbed in its title? A. I think not, by any prudent investor.

Q. Doctor, do you agree with this statement of Mr. Veatch, found on page b-49, referring to this particular bed: "So

much so, that with reasonable certainty we would not
1259 hesitate to advise the expenditure of money, the acquiring of property for the purposes of exploitation of a coal bed? A. No, I would not hesitate, and no coal geologist would, either, if the tract were sufficient."?

A. I have already expressed an opinion on the latter part; I think geologists would hesitate after a study of the actual condition here.

Q. What is a thrust fault?

A. A thrust fault is a reversed fault, one in which the throw has been such as to carry what would ordinarily be the hanging wall of the fault up and cause it to override or be thrust over the foot wall; whereas, in the normal or ordinary fault, the hanging wall has gone down and the foot wall has gone up. Normal faults are generally the result of stretching and tension, whereas, thrust faults are generally the result of intense pressure due to serious throwing.

Q. Do you agree with this statement on page 54 of Veatch's evidence: "Q. Now, you believe, do you, that you could in all cases determine the presence or absence of a want in depth by the indications of the outcrop as prospected here? A. No, you could not; you could determine the probability of one. Q. The probability of it? A. Yes, sir." Do you agree with that statement?

A. To a certain extent. For instance, if you found the evidence of a want on the outcrop, you would infer a want immediately beneath that.

Q. Oh, yes, would that be an indication of what you would get in depth, I mean?

A. No, sir, not at all; I was about to modify it in that way.

1260 Q. Is there any significance at all between what might be disclosed on the outcrop and a want, aside from the mere locality where a want might be disclosed, or vice versa?

A. I think not, and I take it that the disclosures in these mines demonstrate that very clearly.

Q. Have you examined the geological map produced by Mr. Veatch?

A. In a general way, only.

Q. Are you able to tell me how he arrived at the contour lines that are shown irregularly drawn upon that map?

A. No, sir, I am not, when I find that they are intended to represent depths beneath the surface. They are not surface contours. I can understand how he could have arrived at certain contour lines representing conditions on an assured hypothesis of continuity, but when we find those lines so exceedingly irregular, varying at almost every point, I am at a loss

to understand how he obtained them or how he obtained the results and from what data.

Q. I wish to inquire of you, Doctor, if you are familiar with Mr. Leslie's work? A. I am, yes, sir.

Q. It was published, I believe in 1856?

A. Sometime before I was born; I dont remember exactly.

Q. In the preface I note this, and inasmuch as certain parts of the work have been quoted into the record, I will ask you whether it correctly states, in your opinion, the purpose which the author has in view. I read from page 1: "The author has planted this sapling for the future shade and ornament of his own office, but trusts that it may prove useful also and perhaps agreeable to the public highway." Do you know what

1261 is meant by that?

A. Oh, I see a figure of speech intended there.

Q. Well, seriously speaking, of the work, I will ask you if at the time this work was published there was any definite information with reference to the coal deposits of the cretaceous era or age; were there?

A. There was not, and there is not a single reference in that book to any Cretaceous coal deposits or any other coal deposits than those with which the author was familiar in his immediate neighborhood, and many of the statements made by the author are wholly inapplicable to the Cretaceous coal deposits of the West. I can cite a few passages to you if you desire, to demonstrate that.

Q. I wish you would do that.

A. On page 51 of this work, Leslie says, beginning at the bottom of page 51: "In the great coal regions of the United States we are concerned only with the paleozoic strata which underlie the coal and form a floor for it in some parts several miles thick."

Q. Now, pardon me.

A. That finishes that quotation.

Q. Is that true, speaking of the coal areas of the United States as we understand the term today?

A. It is not true, but it was true in the sense in which Leslie applied it in that day; but to cite a work of that age, written before the great coal deposits of the West were ever suspected to exist, before it was known that coal did exist in the rocks of the Cretaceous age, is, I take it, scarcely to be up to date.

Q. Have you seen the old Spanish map of the United States?

1262 A. Yes, sir, I have seen it.

Q. Covering particularly that portion ceded to the Government by France and the Louisiana Purchase?

A. Yes, sir.

Q. Would you cite that as an authority on the geography of this part of the country today?

A. No, sir, unless I wanted to show the geographical boundaries of the lands thus ceded.

Q. Well, as a geologist, do you consider that this citing of Leslie with applicability to these coal deposits, is an authoritative citation?

A. No, sir, for the reason I was about to illustrate by a few other citations.

Q. You may proceed to do that.

A. Leslie never has been an authority and never has been cited in geological literature as an authority on coal deposits. His work was a popular work of the day, and doubtless did a great deal of good in arousing interest among reading people.

Q. It is written in a style which is particularly suitable for the lay reader, rather than the geologist, is it not?

A. It is.

Q. Now, proceed and give us some more excerpts from Leslie.

A. To show that he had absolutely no idea of the Cretaceous coal occurrences, I read from page 47, the beginning of chapter II: "One principal coal era in geologic history threw into the shade all previous deposits of fossil vegetation,—" that is true. I continue the quotation: "And has never returned." The period of Cretaceous coal accumulation was decidedly a coal period, but he knew it not as shown by that citation. And along the same line I read further from the same chapter on page 50: "This we call the era of coal." Referring
1263 to the Carboniferous. "It comes nearly between the beginning and the end; it is the true noon of geological history; proceeded by the primal dawn and the older, central morning and followed by the afternoon of the new wrought, the Lias, Jurassic, Tertiary, rock and by the evening of the actual times."

Q. How do you interpret that?

A. I interpret it in a broad way to mean that he knew of but one period of coal accumulation, and that he affirms there is no other. Now, to show that he had in mind there the Carboniferous deposit in Pennsylvania, and that his description therefore of coal and the conditions of coal accumulation cannot be applied here, I will cite a sentence or two from page 16: "Wherever coal beds exist, there limestone beds are to be found a few feet above or underneath them, spreading as widely and as evenly as they, and maintaining with great equalness the intervals between." Now, the association of limestone beds with coal beds is in a broad way true of the Carboniferous coal accumulations, the limestone for-

mation being mostly shallow water limestone and not the deep sea limestone, and this was characteristic of that Carboniferous day, when the air was wholly charged with carbon dioxide, and when the carbon dioxide was being absorbed by the ocean water in great excess and limestone depositing along the shores. In the Cretaceous rocks of the West I know not of a single instance where limestone is associated with coal, and Leslie says: "Wherever coal beds exist, there limestone beds are to be found." On page 17 he refers to the association of coal with iron deposits. Iron ore deposits are found very frequently in the form of bog iron ore, associated with Carboniferous coal, and the explanation of that is by no means difficult to find when we consider the chemical processes
1264 then going on and taking place in the Carboniferous day. Leslie says, quoting from page 17: "Still more universally true is it that wherever there is coal there is also iron, either in the bed itself or in the rocks above it or below." The association of iron ore with coal is not known in the Cretaceous coal bed. On page 32 Leslie, referring to the coal beds of the East and the way in which they are found outcropping there, makes this statement: "The principal surface indication of a coal bed is a coal bench or terrace. The rule is that every coal bed makes a terrace along a hillside and a hollow at its end." I affirm that that has absolutely no reference to the Cretaceous coal deposits of the West. On page 34 he still further refers to the accumulation of iron in connection with coal, and points out that from the coal seams there will always be found issuing chalybeate iron or iron bearing springs, and I will quote his words from page 34: "A line of tainted springs along a terrace is the characteristic index of coal." I affirm that you do not find chalybeate or other springs characteristic of the presence of Cretaceous coal of the West. On page 36 Leslie gives as one of the general characteristics of coal occurrences this feature. I quote his words from page 36: "The upturned roof of fallen timbers are the usual discoverers of coal." Now, in the Carboniferous coal seams of Pennsylvania you do find many of the large, Carboniferous trees, the Lepidadendrids, the Sigillarids, the Calamites and other large trees characteristic of the vegetation of that period. The vegetable matter from which the Cretaceous coal deposits of the West have been accumulated is not at all associated with trees of large growth, and the statement is utterly inapplicable to the later coal deposits.

1265 Q. How about living trees turning up the crops along the Oyster Ridge?

A. I did not know there were any there.

[A.] I didn't either. I think that will do for Leslie, unless there is anything special which you wish to quote.

A. No, sir.

Q. Did you examine the quotations that were cited by Mr. Veatch in his testimony? A. Yes, sir.

Q. Let me ask you this one question: Outside of the differentiation between the occurrence of metalliferous deposits and coal deposits, are they applicable at all to the conditions which we have in the field of controversy here?

A. No, sir, they are not.

Q. Now, Doctor, do you recall any facts or detail of your investigation that you have omitted that you would like to speak of or that you think would assist us in any manner?

A. I think of none now. If there be any, I will mention them in the morning possibly, if you will carry it over.

Whereupon further hearing was adjourned until Friday, April 4th, 1908, at 9 A. M.

Friday, April 4th, 1908, 9 A. M.

Direct examination of Dr. Talmage, resumed

By Mr. Kelley:

Q. Doctor, on yesterday evening, in your examination you referred to a section of O. O. or upper vein which had been measured by you, and the cross-section of which had not been introduced in evidence. I hand you this paper and ask you to examine it.

A. This is the section referred to, but I note six inches of bone coal where one foot should be specified; it is evidently an error on the part of the draftsman; aside from that it is the correct section and the one I read.

[A.] And represents the section which you read in evidence?

A. Yes, sir.

Mr. Kelley: We offer this section in evidence and ask to have it marked as an exhibit.

Section admitted in evidence, without objection, marked defendant's exhibit No. 21.

Q. Doctor, I wish to ask you a question with reference to the soil of the valley along where the lands in controversy lie. What is the character of that soil?

A. The soil is a shale residue, containing an admixture of sand and clay, as its general character it is a typical valley soil?

Q. Would you say that the surface soil was one that was capable of productivity from a commercial standpoint?

A. Yes; the wild growth of the valley showed that.

1267 Q. Did you observe any alkali in your visit over the soil?

A. No; the valley is not an alkali valley, that is, the soil is not what is known as alkaline soil in the West. Of course,

the majority of soils have an alkaline reaction chemically, except those that are of lime charged with organic matter, charged with its organic acid. I have no doubt this soil would prove to be typically alkaline, and that means that it would be the same as most of the valleys, but it is not alkaline in the sense of containing free alkali, and I looked with care in traversing the valley, and failed to find any efflorescence, alkaline matter at all.

Cross-Examination

By Mr. Birch:

Q. I understand you to say that you have received a Doctor's Degree from some college or university?

A. Yes, sir.

Q. From which one?

A. I received a Doctor's Degree from the Illinois Wesleyan University.

Q. At Evanston? A. No, at Bloomington.

Q. Doctor's Degree, a Doctor of Philosophy?

A. Yes, sir.

Q. Ph. D.? A. Yes, sir.

Q. Any other degree?

A. Yes, sir, I hold the Baccalaureate Degree from the Illinois University.

Q. Master of Arts or Bachelor of Arts?

1268 A. No, Bachelor of Science.

Q. Those are your degrees?

A. Yes, sir.

Q. How long were you connected with the University of Utah?

A. I was connected with the University from 1893 until the summer of 1907. For three years I was President of the University, and resigned the Presidency to continue my work in geology, and last summer I resigned entirely.

Q. I want to ask you now, Doctor, about the location of the lands in question as to their topography. I understood you to say in your direct examination that they were lower down than the Oyster Ridge, and some, if not all of them, in what might be called in the valley to the west of this Oyster Ridge; is that correct?

A. That is correct, yes, sir.

Q. And that this outcrop is practically on a line and closely adjacent to the Oyster Ridge or is the Oyster Ridge itself?

A. In a general way you are correct. It may be said to lie at the western base of the Oyster Ridge.

Q. At the western base. Is this ridge a broad ridge?

A. I should say no, it is typically a narrow ridge. By speaking of the western base, I mean, of course, the base of the ridge as a topographic feature. The ridge presents a dip toward the west, the actual slope of the ridge being in reality the dip of the beds composing the ridge, and the outcrop only occurs along the base of that ridge as a topographic feature where it joins with the general floor of the valley.

Q. In distance from the summit of the ridge, then, the west edge of the summit of the ridge to some of these lands, the distance would be very slight, I presume, say, half a mile
1269 or thereabouts?

A. Generally more than that, but still—

Q. Yes, generally more than that, but some of them, I say, as for instance, in section 18, town 19 north, it would only be a few rods from the ridge over to the nearest land, according to complainant's exhibit 280?

A. I think that is practically correct.

Q. The furthest of these lands, according to this map, only would be about two and a half miles; less than two and a half miles from the ridge.

A. That can be determined with accuracy from the map, if you desire, but in a general way I think that is about correct.

Q. Now, coming down the western slope of this ridge, how far, ordinarily, would you come before you reached what you properly term, in a topographical sense, the valley?

A. The slope of the ridge in places would be fully half a mile from the crest down to the valley; it is very variable, however; the sky line of the ridge is a serrated one.

Q. And that would hold to a longer distance or to a shorter?

A. Well, to a longer distance.

Q. Well, in the next distance—you call it serrated—the next distance down to the valley along from section 18, town 19, to the north line of town 20, it would be about as you have stated—or how far would it be, the furthest distance before reaching the valley from the ridge or apex, we will call it?

A. Speaking in a general way, I should say about half a mile to three-quarters of a mile from the crest of the ridge.

Q. Well, does the valley run to the westward or continue to the westward; is it a broad valley extending beyond these lands or do these lands extend about to the hills or boundaries of the valley on the west side?

1270 A. There is a good, broad valley, the valley conditions extending for a mile or so, a mile or two beyond the western limits of these lands in question; in some cases three miles beyond I should judge.

Q. Now, from your testimony I draw the inference or deduction that in practical effect one man can see into the earth about as far as another man; am I correct; is that your theory or position?

A. You are correct as to my opinion of that fact. I don't know whether my testimony has had any reference to that, but as to the fact, I will agree with you that that is true.

Q. You agree, then, that your science of geology has not reached that stage where any man can calculate with any degree of correctness what underlies land that he has not had the opportunity to make an underground investigation of.

A. In a general way, yes, with this modification: if there be well defined formations outcropping, the presence of which is revealed by actual surface occurrences, and the general structure of dip and strike of such formations is well shown, then the geologist would be able to say that the balance of probabilities would indicate the continuation or non-continuation of this and that formation beneath a certain land. Of course, the geologist's ability to say what is beneath the surface where there is no positive evidence furnished by surface phenomena or by artificial excavations, which I regard [of] they are exposed, as surface phenomena—I will say that the geologist is unable to so predict.

Q. I observe in your reply that you use the term well defined strata or well defined—yes, I should say strata—
1271 and positive evidence. Am I correct; that is what you want me to understand, that in order to indicate what lies under the surface of land from the surface indications, the surface indications of the rock or strata must be well defined, and must be, as you term it, positive in character. Am I correct? A. Yes.

Q. Then, if the surface indications are not well defined and not positive, the geologist enters at once into the domain of speculative, and therefore the region, mentally speaking, of opinion. In other words, the best you can do is to give an opinion? A. Yes, sir.

Q. It is in the domain of speculative science then, isn't it?

A. I should not use the term speculative science myself; I should say that, if the surface indications are not well defined and positive, as you say, the geologist's opinion would not be as strongly supported as in the case of well defined and positive surface evidences. I should say, rather, that where the evidence is not so well defined, his opinion would be as to the probability of such a state of conditions existing, and if you mean by the term speculative science, the domain of such investigations, then I agree with you.

Q. That domain is not quite that of exact science, as you might term it, but is in a sense speculative and a subject of opinion?

A. I will say quite so, in proportion to the uncertainty of the evidence.

Q. In which case, as in all matters of opinion, doctors may disagree? A. Yes, sir.

1272 Q. You would not take it amiss, then, Doctor, if some other doctor—some other man would express an opinion contrary to yours?

A. I do not take any one's honest opinion amiss; I quite agree with you there.

Q. If you, then, were a witness in a case, and some other person were a witness in the case and I was on the jury—some other man of reasonable pretensions in a geological scientific way—and I was on the jury, I would be at liberty, in your opinion, under such circumstances, to act the part of the ordinary juryman and accept or reject your testimony or his, if you disagree?

A. I understand you would have that right under the law and you would certainly have my full concurrence and support.

Q. Now, returning to the battle. You say that there is no outcropping manifest, but you said something, and I want to see if I am correct about that, from which I might infer that in the action of erosion or wash or whatever it may be called, it is possible that deposits might have flowed down and lodged along at the lower land constituting this valley, and might have covered up manifestations of a character that would be indicative of you by way of outcrop at that time and before that invasion or deposit, somewhat as the indications are along the Oyster Ridge. Am I correct from your statement?

A. If I understand you correctly, yes, sir. The material that has been brought down from the higher parts into the valley has certainly covered up all otherwise outcropping strata there. However, this valley covering does not extend to the outcropping horizon or outcropping coal measures along the western base of the Oyster Ridge. The outcropping of

1273 this horizon or of these coal measures is above the general level of the valley from one end to the other. In no place is it part of the valley floor; it is above the valley covering.

Q. Precisely. But suppose a new deposit, a new strata, a new vein should have set in at an early period, and its upward manifestation has been covered up by those, might there not be geological formations down there that, by reason of this possible covering of them up or covering of their upward appearances, you would not be able to tell?

A. There is just one word in your question that I did not quite catch. Did you say that there may be another deposit or vein laid down at an earlier period?

Q. No, I did not say at an earlier period.

A. You said early or earlier, and I did not quite [—] which.

Q. Perhaps, but I did not so mean it.

A. The reason that I ask is, a deposit belonging to an earlier period would be beneath the strata.

Q. Surely.

A. But if you mean a deposit at an early period, but notwithstanding, later than the deposit of the coal measures, themselves, then I can answer your question squarely to this effect, that any such overlying strata, now covered by valley wash, are entirely hidden from the geologist, as from any other man. Those later strata, as far as structure is concerned, might contain coal, or might consist of gold placer gravel or of any other material. I have absolutely no intimation as to what they might be.

Q. I am satisfied with your answer, Doctor, perfectly; it is just—you understood me and I understand you.

A. Yes, sir.

1274 Q. Now, would you expect, as a geologist, and as having knowledge of western coal formation—would you expect such a thing to occur, with greater hope or belief that it would so occur because of its proximity in distance to the Oyster Ridge and its formations or indicated formations, any more than you would if the same things were sought after miles distant from any coal formation, many more miles distant—we will say ten miles further away from any such foration as the Oyster Ridge?

A. I would answer your question, yes, understanding that my answer means this, that the probability of finding another coal seam within coal measures is greater than the probability of finding coal in rocks that are not known to be coal bearing in general.

Q. That is what I meant. This Cretaceous formation—in my state of semi-ignorance—I understand you to have testified yesterday, is peculiar in the West here—I will say in Wyoming to be more definite—is peculiarly uncertain as compared with the Carboniferous deposits of an earlier age, either here or elsewhere?

A. No, I did not wish to be so understood, that the Cretaceous formations are uncertain or irregular as to extent, but only as to their organic contents of coal. I stated that the Carboniferous coal occurring in the Carboniferous coal measures in these older rocks is generally more uniform, more continuous and more to be depended upon as occurring be-

neath the surface, for example, than the Cretacerous coal. The Cretaceous formations, consisting of sandstone and shales of many varieties, can be traced with great certainty, although they are far more variable as to composition than are the carboniferous rocks themselves. We will find, for example, one particular cretaceous stratum,—I have in mind a definite occurrence in the state of Utah, where we found the
1275 particular cretaceous stratum, grading within a short distance from a fine grained shale into a coarse arenaceous or sandy shale and from that into a very coarse shale and from that into a conglomerate.

Q. My motive in asking you this question is rather circumscribed, simply practical; it is not intended to be scientific, or I might call it scholarly. What I want to know, if I can make myself understood, is whether you desire to be understood that you are more uncertain as to the location, the character, the thickness and value, etc., and extent as to the beds or part of the measures covered in this cretaceous coal formation, than in the carboniferous formation, which I understand you is of an earlier age? A. Yes, sir.

Q. That is enough; that answers what I wanted to find out. But do you expect as a geologist and from your experience that where it may leave off, it does not necessarily leave off for good and all; I mean its limits; it may begin again speedily—soon—in another deposit or at least in a continuation, which was broken off or wiped or washed out or something of that kind?

A. Yes, sir.

Q. Now, that is exactly the situation if I correctly interpret your testimony in this field along Oyster Ridge in these three townships, that is, portions of two townships and the one entire township represented on this map, 280; that is exactly the condition. You find in the mines themselves good deposits, I will put it; then wants or poor coal, then at an interval and beginning again another mine, I will not say good mine, but another mine that has been producing; then another leaving off, and so on clear through to the limit of the map; is that not correct?

1276 A. That is precisely my position, yes, sir.

Q. Now, let me ask you one question further. Isn't that true, up and down this line, as well as right and left, that is, east and west?

A. Equally true on strike as on dip, as I understand you, yes sir.

Q. Then, in this domain of what you might term uncertainty, where you can not definitely determine from the outcrop, it might be possible, leaving off at the limits of one of

these mines which you examined, it might begin again in a comparatively short time further to the westward and further down the slope or actually in the valley, itself, embraced, or [than] portion of it embraced in these lands?

A. Precisely so.

Q. That was the reason why I venture to ask you, Doctor—you have no right to testify as to what their reasons were, because you cannot enter into their minds, but what is your idea of the reason for their persistent prospecting, that is, pushing these levels beyond what you would term or consider to be financially a paying proposition; in other words, I understood from the answers of all three of the experts, I will say, beginning with Mr. Forrester, and Mr. Hopkins and yourself, that they had gone from these mines in a westerly direction on their levels or inclines as you term them, a long distance beyond commercially profitable coal; is that correct?

A. In general, yes, sir; going westerly, of course on the slope, and north and south on the level.

Q. Well, yes, westerly on the slope and north and south on the levels; they had pushed those out further than would seem commercially profitable?

1277 A. Yes, sir.

Q. Does that not indicate to your mind their belief, or at least, hope that they would be enabled to intercept a few or broken off deposits of coal by such investigation or prospecting or work?

A. I would infer that that is what they are after.

Q. And from your statement heretofore,—I do not ask you if that is probable, but from your statement heretofore, that would be possible? A. Yes, sir.

Q. That is what I want to know. Now, Doctor, taking it as an assumption that in these mines during the time from the opening of these mines—I will say from 1901 when these mines began to be operated up until 1905 when the last of them were entered—taking those years and assuming that several millions of tons of coal were taken out of their mines, not the Kemmerer, not the Cumberland, not the Union Pacific, but their mines which you have visited—taking into consideration the proximity to these mines of the lands involved in this controversy, would you be willing to testify that during that period you would have been prepared to make an affidavit that these lands, the brick colored lands in controversy are essentially non-coal lands?

A. Yes, I would have done so unhesitatingly.

Q. Why?

A. Because I understand by non-coal lands and I should indicate in my affidavit, lands on which no coal has been discovered, lands beneath which no coal was known to exist,

lands in this case beneath which coal might exist, but if it did exist, judging from the dip of the outcrop, it would be at too great depth to be at all valuable, and moreover, it would occur, if it occurred at all, under conditions which would make it unworkable because of the very unstable roof,
1278 because of the unfavorable floor, lands under which no one could possibly predicate workable coal to occur, because of the great variations shown in the coal where it is exposed; lands which could have nothing more than a speculative value as coal lands; and in making my affidavit I would be governed by the law as I understand it of the matter, which would indicate to me that that was the only kind of affidavit that I could make; and I should consider that I was perjuring myself if I made an affidavit that it was mineral and, because I know that no coal has been or ever will be discovered on the surface of those lands, and because I have no other indication at all that coal exists beneath those lands.

Q. Doctor, you have prepared in your testimony, and would, if you had made such an affidavit, prepared in your affidavit a very beautiful, concise brief for the counsel on the side of the case for which you testify for argument to a court, but it is not what I want. A. Thank you.

Q. From their point of view, and possibly from yours as far as you interpret the law, you may be correct. Now, what I want to know is this: leaving all legal considerations of every name and nature entirely outside of your mind just for the time being; taking into account only your knowledge as a geologist and your experience as to coal mines and mining, and taking no thought whatever as to whether it is bastard coal or intermingled with shale, bone, clay or other material, or whether it is a paying or a non-paying proposition commercially, or whether it lies within one hundred feet of the surface or two thousand or three thousand feet, for that matter, under the surface, or whether the over pressure—I think
1279 that is what you call it—from above is great or little; taking that abstractly, without such consideration, as coal or non-coal lands, would you under such circumstances feel justified in testifying that they were essentially non-coal lands?

A. I will try to answer your question squarely, but let me ask you first, please, if you will tell me what you mean by coal lands. The sense in which you are now using the term in presenting that question to me I am not sure that I understand.

Q. Lands strictly containing deposits of coal, just that, nothing more.

A. With that explanation I should say that I could not make an affidavit that those lands were mineral lands in that

sense, but I would be prepared to make an affidavit that I believed them to contain coal.

Q. That is just what we want, and that is perfectly satisfactory to me, and the line between the answer you gave first and this answer possibly marks the line of demarkation between counsel on the other side and ourselves in this case, and therefore fairly and decently illustrates the situation of the case, and I am very much obliged to you for it. A. Yes, sir.

Q. Now, Doctor, having gone that far, and not desiring to detain the Court any longer, I want to ask you just a few more questions. I fancy that possibly the counsel last night, unintentionally have put you in what I thought was a false position in regard to this Leslie business and possibly I can qualify it a little bit. Now, I read you from Mr. Veatch's testimony this question as asked on M-b 36: "Q. Mr. Veatch, who is J. P. Leslie? A. Leslie was at one time on the Pennsylvania Survey; he was one of the noted geologists of the country.

Q. What is the fact as to whether or not he is recognized as an authority in your profession? A. He is. Q. As
1280 a geologist? A. He is. Q. I will ask you as a geologist whether this is a true and correct statement or not: 'Coal is never found issuing in veins from the interior of the planets like gold and silver; nor filling irregular cross crevices in the limestone, like lead; nor spread abroad in lakes of molten lava like basalt or greenstone; nor imbedded in clay, crystalizing upwards from the walls and bottoms of big, wide fissures, as bunches of grapes or bundles of pipes, like the hematite ores; nor lying exposed upon the surface in blocks like native copper or meteoric iron; but always as a thin sheet or stratum extending through the hills as far as the hills extend, and enclosed between similar sheets of other kinds of rock' ". Now, taking that as an abstract proposition, written at that date, published in 1856 or 1858, from such information as the writer then had, with the circumscribed limits—probable limit of his observation in the United States; Doctor, you would not criticise Mr. Leslie for having written that, would you?

A. No, sir; I think under his circumscribed limitations he has done very well.

Q. Now, the only error that you see is that you would say that it was in reading that into the record in this case; it was possibly the zeal of either the counsel in the case or the geologist who testified, one or the other; that the only possible error that you would see in reading that into the case, the only thing that you would criticise would be that either the counsel was over zealous or the witness was over willing to make that applicable to this case.

A. I should say frankly, Judge Birch, that I would not allege any error in introducing it at all. And practi-
1281 cally I agree with everything there, except this one expression: "Extending through the hills as far as the hills extend." Now, that is true of the district of which Leslie wrote; I have been there and visited the very district he has spoken of, and been in the mines that he has spoken of, and I believe from that circumscribed region that it is a very fair statement and I agree with all the rest of that paragraph.

Q. If the purpose in introducing that was to make plain to a court, the court that hears this particular case, that there is a distinction between a search for what you might term the metallic ores, the metals, gold and silver and copper and lead, distinguishing that search, the character of it, rather, from the search for coal measures and coal deposits—there would not be anything seriously wrong about that, would there? A. Not at all.

Q. Would it not be in that sense really illustrative of that condition, which has not always been distinguished, I fear in the Department of the Interior, the general Land Office, between coal beds or coal measures and metallic ores; the search for coal or the search for iron, copper or any other of those more elusive metals? A. I think so, yes, sir.

Q. If that were the only purpose of it, it would not be subject to criticism, would it?

A. Not unfavorable criticism, I should say not.

Q. Now, then, Doctor, in your subsequent examination last night, when counsel put to you various readings, and you read various excerpts from Mr. Leslie's work, you did not desire to put yourself in the attitude of criticising one who had passed over the Great Divide and who would not be here
1282 to explain in person what he wrote at the time he wrote it, and the matter in respect to what he wrote?

A. I certainly did not.

Q. You want the Court, then, in this case to understand, do you not, that you did not make light or desire to make light, as a geologist of this time and period, of the writings of Mr. Leslie of that time and period?

A. Certainly so, and I would beg to say that I am not aware of having called the attention one single statement of Leslie as being incorrect from his point of view, but as being inapplicable to a region of which Leslie had never heard as a coal region, within which the occurrences of coal were not then known to exist, and I am not aware of having said anything in my testimony which would indicate that I believed that Leslie had misrepresented facts as far as he knew them. Everything that I read from Leslie last night, to my personal

knowledge is strictly applicable to the coal lands of Pennsylvania.

Q. Well, that was all. I regret to say that I obtained temporarily, until I thought it over, a different impression, and then I thought it could not possibly be so, and I did not want the Court to be in the same dilemma, thinking about it, in respect to it, that I was temporarily myself, and I wanted to draw this out. That is all of the cross-examination.

Redirect Examination

By Mr. Kelley:

Q. Have you heard that Mr. Veatch is dead, that he has died since he was on the stand?

A. No, I have not.

1283 Q. Assuming that the purpose was not to criticise Mr. Leslie, what have you to say as to the fairness of a witness in a case of this character, who quotes Mr. Leslie as a present authority upon the conditions existing in this field?

A. Since you embody the question in a personal line, I will say that I could not blame Mr. Veatch, because I know the Secretary of the Interior has quoted Mr. Leslie and has brought in extracts from that work as illustrative of his points, and I considered it entirely out of place, and I say, with all respect to Mr. Leslie, and I reiterate that I have absolutely no intention of criticising him or of branding his book as being other than a worthy work of its kind and date—

Q. There is no doubt about that.

A. —I will say that quoting from Leslie as an authority on the coal deposits of the United States today is wholly unjustified and would not be sanctioned by the geologists of the country.

Q. You refer to the Secretary of the Interior. Are you aware that the matter was called to the knowledge of the Secretary of the Interior by Mr. Taft, one of the United States geologists and the references to quotations are from his letter to the Secretary?

A. Yes, I am aware of that fact; but I did not go farther back than the Secretary's quotation, by which Mr. Veatch was perhaps guided.

Q. Do you assume that it is fair for a geologist who has access to modern literature upon the subject, to use those quotations because they may have deceived a Secretary who was not a geologist? A. No, sir.

1284 Q. Judge Birch asked you in a prolix statement about his desire to straighten out the record so the Court would understand it, certain questions about this work. Let me ask you fairly, if these quotations, standing upon the

record, would not have the effect of deceiving the Court as to the facts with reference to the geological structure in this particular locality, instead of assisting him?

A. I think the quotations made from Leslie are entirely inapplicable here, and that their citation is not justified, and I think they are misleading.

Q. Now, Doctor, you said that one man can see as far into the earth as another. Do you mean ocular vision, or do you mean the examination of the earth's crust with a view to determine the probabilities of what underlies it?

A. I meant actual observation. The question meant that, and I simply adopted it.

Mr. Birch: The question was that of Senator Teller before the committee and I used it in a purely figurative sense.

Q. Is it true that one man can determine what is inside of the earth with the same degree of accuracy as another?

A. Decidedly not; otherwise there would be no significance to the study of geology at all.

Q. Is it true that, given a well defined structure, a geologist can with reasonable certainty determine certain conditions with reference to that structure which underlie the earth's surface?

A. Yes; assuming the structure to be fixed and invariable, the deductions drawn would be well supported.

Q. Is it also true that the presence or absence of the occurrence of specific minerals or metalliferous deposits
1285 can be predicted with reasonable certainty from the general structure of a country? A. Yes, sir.

Q. In other words, it is invariably true, or practically so in that sense, that you associate the occurrence of certain deposits with certain kinds of structure?

A. Yes, sir.

Q. You said that you could not make an affidavit that there was no coal beneath these lands; that was the substance of your answer to the question by Judge Birch. A. Yes, sir.

Q. When you said that, did you mean coal in any particular quanity or quality, or the probability of a mere occurrence of carboniferous matter in its proper place in the strata?

A. I so meant as I understood from Judge Birch's statement of conditions, that even a trace of very impure coal was intended. He said: 'No matter at what depth, no matter what quality, no matter how much bone, how much shale, no matter what the nature of the roof may be;' under those conditions I could not make affidavit that there is no coal under any particular square mile in the country, when I know that the rocks which sometimes contain coal may possibly exist at some depth of some thousands of feet down there.

Q. And that is as far as you wish your answer to be interpreted? A. Certainly, yes, sir.

Q. You were asked by counsel as to the possibilities of there being another coal seam or horizon apexing—or rather, on edge, somewhere beneath the lands in question, and I believe you said that you could not make affidavit that there was not.

Have you examined the Folio of the United States
1286 Geological Survey, by Mr. A. C. Veatch, referred to here as Professional Paper No. 56?

A. In a very few parts only.

Q. Calling your attention to the geological column in that part of the state of Wyoming shown on Plate No. 3 in this paper, between pages 50 and 51, the plate referred to, will you tell me what is shown there as being the formation between the horizon of the coal on the east of the valley and the Adaville horizon on the west of the valley?

A. I find the region to which you refer, as characterized on the plate to which you refer, as the Hilliard formation, and I find it described in the column: "Character of rocks."

Q. I dont care about the description.

A. I find it described in the column headed: "Character of Rocks" as a lithologic character, and it is not stated to contain coal.

Q. Let me call your attention to the remarks under the heading "Economic Value" in the column of the same Folio with reference to this same stratum or formation.

A. In that column the Hilliard formation is referred to in these words: "It is not known to contain coal of economic importance." Further, "Carbonaceous matter has been observed at several points."

Q. Does it state where?

A. "In the Baker well in Spring Valley, nine hundred and forty feet above the Kemmerer coal, but this coal occurs in conglomerate beds between the Hilliard and the Knight, and is probably Evanston."

Q. So that, according to Professional Paper No. 56,
1287 there no coal apexing in this valley?

A. That is true.

Q. Now, I want to call your attention to exhibit No. 311, which has been introduced in evidence and which purports, at least, to show the geology of this section, that is the economic geology of a portion of southwestern Wyoming, prepared by the United States Geological Survey, is it not?

A. Yes, sir.

Q. Does it show the formation between the horizon of the Kemmerer and the Adaville coals? A. Yes, sir.

Q. It shows to what depth?

A. I cant tell you the depth of that—

Q. Seven thousand feet below sea level, isn't it? Here it is.

A. According to these contours, it is supposed to show conditions extending down several thousand feet below sea level.

Q. Does it show the occurrence of any coal deposits beneath the lands in controversy in this action except a possible continuation of the horizon that lies along Oyster Ridge?

A. No, sir.

Q. It does not?

A. No coal other than the projected continuation and assumed continuation of the Kemmerer-Cumberland coal.

Q. So that, from your opinion, assisted to whatever extent it may be by the investigations of the Geological Survey, you would say that, from the known data at this time, there is no coal? A. Yes, sir.

1288 Recross Examination

By Mr. Birch:

Q. Now, Doctor, if it appear that Mr. Veatch merely consented to the use of the language from the two excerpts of Mr. Leslie's work or manual, whatever you choose to call it, for the purpose of illustrating the difference between the search for coal beds or measures, coal deposits, and the search for veins or lodes of metallic ore, it would not be criticisable or unjustifiable for that purpose, would it?

A. As I said, I think not in spirit and essence. The fact still remains that you are quoting from one who is not regarded as a modern authority, and one whose work has been so thoroughly superseded by better work—

Q. Notwithstanding if the particular language used by that authority puts it better and plainer than the witness himself could make use of for the purpose I have indicated, it would not be criticisable, would it?

A. Not criticisable as being wrong, I would take it, no.

Redirect Examination

By Mr. Kelley:

Q. If Mr. Veatch, with reference to this particular field, was asked for the purpose of showing the difference in the search, the following language, quoting from Mr. Leslie: "Under ordinary circumstances and for all practical purposes, the quality, size and mining condition of a coal bed can be explored as well in two or three days by a gangway ten or fifteen feet long, as by working through it for a month or a year," and stated that it was true with reference to this character of a coal bed—

1289 Mr. Birch: That is not so; I beg your pardon.

Mr. Kelley: It is true exactly.

Q. —"Q. Is that true? A. That is the practical method of exploration." Page M-b 38. Would that be a fair statement of the fact?

A. I would consider it very improper, because it is not true when applied to the coal deposits of the west.

Q. And would you say that such a citation was necessary to determine between the search made for metalliferous ore deposits and for coal veins? A. No, sir.

Q. And would you say further, if he was asked this question, quoting from the same page: "Q. A coal bed may indeed belie itself at one point or at two where openings are made, but not at a dozen. Veins of lead, of copper, of iron, alternately increase and diminish in size, rapidly and unexpectedly; the miner never knows until he strikes the vein what it will be worth, nor how soon the pocket [—] has entered may close up between bare walls. Not so with coal; it varies little and seldom disappoints; what it is at one point it is likely to be much the same at another," Then, Mr. Burke, continuing the questions, says: "Is that a correct statement from a geological standpoint? A. Yes, sir." Would that be a fair statement of a witness who was honestly endeavoring to point out to the Court the difference between the search for metalliferous deposits and the occurrence of a coal vein under the conditions here in controversy?

1290 A. I will not impugn the motives of the witness, but I will say that it is entirely inapplicable to this particular region or to any coal region of the West, to any Cretaceous coal deposit.

(Witness excused.)

1290½ Reno H. Sales, after being duly sworn as a witness on behalf of defendant, testified as follows:

Direct Examination

By Mr. Evans:

Q. Give your name in full, Mr. Sales?

A. Reno H. Sales.

Q. And your residence? A. Butte, Montana.

Q. Mr. Sales, what, if any, education have you had as a mining engineer or geologist?

[Q.] I was first educated at the Montana State College at Bozeman, Montana; I studied mining engineering and took a degree there of Bachelor of Science and Engineering, graduating there in 1898. In the fall of 1898 I entered Columbia

University, New York City, and took a course in mining engineering, and graduated there in 1900, in June.

Q. Was a considerable part of the course at Columbia, and also at the Montana College previously, devoted to geology?

A. Particularly at Columbia I studied geology in the two years; I made rather a specialty of economic geology.

Q. How soon after your course at Columbia did you enter upon practical geological work?

A. Well, in August, 1900, I entered the employ of the Boston & Montana Company at Butte as an assistant surveyor, and I held that position for about a year, and some time in the fall of 1901 I went into the employ of the Anaconda Company as assistant and geologist, and have made a study of geology since that time, and a study of ore deposits.

1291 Q. Since that time you have been practically devoting all of your time to geological work? A. Yes, sir.

Q. In connection with your work and during that period, Mr. Sales, what coal mines have you examined or visited, particularly in the Western Cretaceous fields.

A. Well, I visited nearly all the principal coal fields of Montana, and my experience in Wyoming has been in this particular district, Diamondville. In Montana I made a particular study of the Chestnut coal fields, spending several months there in working out the structural features.

Q. Were you directing the development and prosecuting the work there?

A. Yes, sir, at that time I directed the prospecting work, that is east of Bozeman.

Q. Mr. Sales, have you examined this Kemmerer-Diamondville-Cumberland section, including the lands in controversy?

A. Yes, sir.

Q. You made both the surface and underground observations there? A. Yes, sir.

Q. When did you first go over the ground, the surface of the ground?

A. My first visit was some time in the latter part of 1907, I think about November; I went there and went out over these lands in controversy, but at that time I made no study of the outcrop or any condition, just merely went over the surface.

Q. You observed the surface and the outcrop there did you, the horizon?

1292 A. Well, not particularly at that time; I did not observe the outcrop, just went over the surface and particularly the lands in the valley.

Q. The lands in controversy? A. Yes, sir.

Q. Since that time have you made a visit to that district and examined the conditions there?

A. Yes, sir, I visited Diamondville; I arrived there in the afternoon of April 7th of this year, and for three or four days following I examined the surface conditions and also the underground conditions in some of the mines there.

Q. Did you examine particularly the surface of the mines in controversy upon that visit, and the coal horizon there known as the Kemmerer-Cumberland horizon? A. Yes, sir.

Q. Now, I wish you would first give a brief description of the coal horizons on each side of the valley, the lay of the valley between and the lands in controversy as related to it.

A. Well, topographically, the area there is one of narrow north and south ridges, with intervening valleys, and the principal ridge, and the ridge near this ground in controversy is Oyster Ridge, which runs slightly east of north and to the west of Oyster Ridge is a low valley, the surface of which is rather rolling, but practically level. About two to five miles to the west is what is known—I don't know the name of the ridge, but the Adaville mines are located on this ridge west of the valley which I speak of, and they call those mines over there the Adaville coal mines. The valley itself is, as I say, a rather smooth and rolling valley, and contains no outcroppings or rocks, and is practically all covered with wash or soil. The vegetation there is mainly sage brush and
1293 grass. The grass is fairly good; it makes a fair grazing land.

Q. And the lands in controversy, are they all within this valley and within this description as grazing lands which you have given? A. Yes, sir.

Q. Is there any outcrop or evidence upon the surface of these lands of coal?

A. No, sir, as far as I could determine there was no outcropping of any kind in this land in controversy, not even rocks.

Q. It is covered with wash?

A. Covered with wash or soil, yes, sir.

Q. The adaville coal measures, lying on the west side of this valley, dip to the west, do they not?

A. Yes, sir; they are lying entirely to the west of the valley, and the rocks dip to the west there, away from this land.

Q. Have they any bearing directly or indirectly upon the question of coal beneath the lands in controversy?

A. They have no bearing whatever upon this question.

Q. Now, Mr. Sales, what are the coal measures or horizons here, considered in determining whether there is coal beneath the surface of these lands in controversy. You have stated

that there were no cropping or showings upon the surface, what have these coal measures to do with the question?

A. The fact that all of these measures and formations dip to the west naturally, like those on the east side, they are to be considered in this matter.

Q. Are there any evidences that you have been able to discover of any coal measures or horizons lying between the Adaville and the Kemmerer-Cumberland horizon on the east
1294 side of the valley, that is, any which may come up under the lands in controversy and be covered by the wash or rock above them?

A. Well, the rocks beneath that valley, whatever they are, are not exposed, of course.

Q. Are there any evidences of any such occurrence?

A. No, sir; there is no evidence whatever in this particular portion here between Diamondville and Cumberland.

A. That is what I am talking about. If you examine Mr. Veatch's map which has been introduced in evidence here as complainant's exhibit No. 311, the geological map.

A. Yes, sir.

Q. Did you discover anything upon that map which would tend to show that there were no other coal measures or horizons west of the Kemmerer-Cumberland horizons or measures and beneath the valley there? A. Yes, I did.

Q. What does that map show in that way; what are the evidences?

A. The lands between the Adaville Ridge and the Oyster Ridge are marked on this map in a gray color; there are three colors, light gray, a darker shade, and a dark gray, and in the legend on the side of the map the same colors are given with the same marking and the name of the formation. It is called the Hilliard formation, and noted in connection with this, it is said: "Not known to be coal lands," or "Coal is not known to exist in this particular formation."

Q. And no intimation that there may be coal deposits in that Hilliard formation? A. No, sir, none whatever.

Q. Now, Mr. Sales, will you describe this coal horizon
1295 on the east side of the valley there, the Kemmerer-Cumberland horizon, the one and the only one which would have any bearing upon the questions in controversy here, beginning at the south; just give a general description; I don't care to go into the sections again.

A. I began my examination at the Cumberland No. 3 mine. In the first place I would like to state something about the character of this outcrop as apparent.

Q. Certainly.

A. This outcrop or coal horizon, north and south here, is generally marked or exhibits itself by a slight depression in

the surface, that is, the coal itself is more easily disintegrated than the overlying and underlying rocks, and the result is that there is a slight depression where the coal seam or coal horizon actually is, and on the hanging wall or on the west side there is usually a little ledge of sandstone, so that in walking over the field here, there is not much difficulty in following this little depression and locating it as you go along, and you can feel rather positive that you are on this particular horizon by following this depression and lining it up as you go across the field. Beginning at the Cumberland No. 3 mine I examined the ground to the north, following this coal horizon, and about the first actual exposure I got of the coal seam was about a quarter of a mile north of Cumberland No. 3 mine. In that hole the coal showed good. I did not take any cross-section of it, but it showed seven or eight feet of coal, good looking coal.

Q. That is upon section 17?

A. Well, yes; that is a quarter of a mile north of the center line of section 17.

1296 Q. That would be along still a quarter of a mile south of the north line of the section?

A. A quarter of a mile south of the north line of the section, yes, sir. Now, immediately north of this hole, at the center of this quarter section, there are a great many prospect holes, I should say eight or ten or twelve; I did not count them exactly, but there are a lot of them, and they have evidently searched diligently for coal there, but none of these holes show any coal, excepting possibly a little dirt coloring on the surface or on the dump.

Q. Then, Mr. Sales, for the first mile or mile and a half upon that coal horizon north of the Cumberland mine, or north of this first hole, a quarter of a mile north of the Cumberland mine, the hole that you have spoken of, the horizon there shows diligent prospecting and a number of holes, and no satisfactory showing of coal at all? A. Yes, sir.

[Q.] They have undoubtedly tried very hard there to find that coal seam and find workable coal, but they prospected along the seam, along the horizon, at least. There are several holes there, undoubtedly on the horizon, but they show no coal. Continuing north I examined all of the openings in section 8; there are several of them just in the south half of section 8, north of the south line of section 8, and they show practically no coal, with the exception of one near the south line, as I recall them, and that did show some coal. The width I can give you. I can go over these sections if you think it necessary.

Q. Do you recall whether it was of workable width or quality?

A. Well, it seemed to me that there was probably six feet of coal in it; but it had three or four streaks of shale
1297 in the coal seam itself, and had about three feet, as I remember it, of very bad roof, a shaley roof.

Q. You would not call it a promising showing, then?

A. No, sir.

Q. Now, taking the outcrop from that point on to the Glencoe mine of the defendants, Mr. Sales, what is the general observation you made of the outcrop there as to being variable, showing any coal at all?

A. My general observations were, to put them briefly, that south from No. 4 mine to the hole I just mentioned a quarter of a mile north of Cumberland No. 3 mine, there are no showings there at all which might be considered workable coal; they are very small, the coal seam shows very small and quite dirty, and the fact that you can follow the Horizon rather closely and observe it at these different points, leads me to this conclusion; there are several places there, and particularly in section 32, where the coal horizon shows, instead of workable coal a brownish shale, with probably a little coal at the bottom, is actually exposed there without development.

Q. Now, how many prospects along that outcrop from this Cumberland mine north to the Glencoe mine, Mr. Sales, from your observation there, actually show workable coal or a showing that would justify the expectation of workable coal as you go down?

A. Well, from the hole just south of No. 4 mine, which is located near the south line of section 17—

Q. What is known as the Daly hole?

A. Yes, I think that is called the Daly hole—from that point down to Cumberland I do not know of any holes; there are not any holes in that section that show workable coal.

Q. Now, you heard Mr. Forrester give his sections here,
1298 did you not, taken along the outcrop? A. Yes, sir.

Q. Did you follow them having in hand your observations and notes made of the same points?

A. Yes, I heard the sections described.

Q. What have you to say as to whether the sections which Mr. Forrester and these other gentlemen have given here, agree with your observations and notes on the same sections?

A. They do agree.

Q. What have you to say as to whether those sections favorably and fairly present that outcrop, that is, whether they do justice to the outcrop as shown?

A. Those sections certainly give all the exposed openings in the outcrop; all the sections of coal visible were taken and measured, and I do not believe that there was anything left out; it was very carefully examined, and they show accurately

and fairly the conditions of that outcropping between the points mentioned, between the Cumberland No. 3 and the Glencoe mine.

Q. Mr. Sales, could a number of sections be taken from holes and intervals along the outcrop which would have made a very much poorer showing for the outcrop?

A. Yes; there were a great many holes here put down on this horizon showing nothing. Of course, there being no section of coal exposed, nothing was measured; but if every hole along this horizon were sketched and exhibited along with the sections already given on defendant's exhibit 5, the showing as far as coal is concerned would be very much poorer. The proportion of holes showing coal would have been very much smaller than at present, as shown on this exhibit.

Q. What have you to say as to whether there is ap-
1299 parent along this outcrop there at the present time, or at the time of your examination, work which shows that it has been fairly prospected from No. 2 mine of the Diamondville Company down to Cumberland?

A. Oh, I dont think there is any doubt about that. When a man puts down a hole to prospect a seam, he puts it down there to find coal and if he does not find it satisfactory he goes to another place, and if he does find coal sufficient to be worked, he usually stays there. It is very evident here that in prospecting this seam, he has put down a hole where nothing has been found satisfactory, and he has put down another hole and so on, and in that way the entire distance there has been, I think, thouroughly prospected.

Q. Some of these holes from which these sections were taken and which you observed are of considerable depth, are they not?

A. Yes, sir.

Q. Mr. Sales, what have you to say as to whether it is practicable or advisable to follow down on a coal vein, where your surface prospect does not justify it?

[Q.] Oh, there is no question about that. Men will not sink down on an unfavorable outcrop. He may sink down a ways, perhaps as much as two hundred feet, although I did not go down to that depth, but these holes have been sunk down to that depth, and found unsatisfatory, and then they put down some more holes in the further expectation of developing something worth while.

Q. Now, did you examine the outcrop also along north from Glencoe, No. 4 mine, to No. 2 mine?

A. Yes, I did.

Q. North of Glencoe there what is the outcrop showing between, as to there being any showing or not between the mines?

1300 A. From north of No. 4 mine, beginning there, the first hole is probably about two hundred feet from the mine, but it caved up and nothing can be [leared] from that. Going north from No. 4 mine there are a great many openings along the horizon there, but nearly all are caved; the first one, I think, is about eighteen hundred feet north of No. 4 mine, and that shows some fairly good looking coal on the dump, quite a bit of it; but going north from there there are a good many holes along the horizon, some are large and some are small, but they are caved up and no measurement could be taken possibly of the seam of the condition in the holes, and besides the larger holes there are smaller ones. Evidently a man would sink down, not a big hole, but would sink down a little, enough to disclose the outcrop, and then continue to some other hole. Now, the result has been that along here there are a great many of these smaller holes as well as the larger ones, and they all show a brownish material, a sort of brown shale, a shaley character of material and no coal. The holes dug on the outcrop where the seam is good show a black coal, a coal material, a good indication of coal, but this brown, shaley material indicates clearly that there was no coal in the seam at the holes.

Q. Now, did you make some underground investigations in the mines to the south there, No. 2 and No. 4, which aided you in arriving at your conclusion in this matter?

A. Yes, sir.

Q. What assistance would an observation of the underground workings in these mines in that neighborhood be to you?

A. Well, they would generally confirm, if they do, one's conclusions, drawn from the examination of the outcrop.

Q. Would the irregularities and uncertainties and
1301 disappointments and changes in the vein in the character and quality of the coal and the mining conditions underground, assist you somewhat in arriving at an estimate of the undeveloped portion of the vein to the south?

A. Yes, most decidedly.

Q. Would it be natural to conclude that the same situation might present itself to the south?

A. Yes, sir.

Q. Now, describing the mines which the various witnesses have done repeatedly, and have mentioned the occurence of what is called bastard coal, a rather poor quality of granular coal found in the seam, I will ask you if you observed that occurence, Mr. Sales, in these mines?

A. Yes, I did. That was one of the first things that attracted my attention when I examined these coal veins.

Q. What is your observation as to whether the occurence of that bastard coal is general in a mine, or whether it is usually a very simple and local occurence which may disappear going one way or the other?

A. Well, as an actual example, and to give you an idea how it struck me when I first saw it—I believe it was in the 3rd entry south, or the first entry into which we went in No. 2 mine, south in that entry some distance I noticed in the center of the seam, which at this point was pretty good coal, a narrow band of a dull, earthy material coming in; it was probably an inch or half an inch wide, but narrow and following that along the entry it gradually became wider, and at the face of the entry it was two or three feet wide. I found the condition also in the entries below that, in the 5th, 6th, 8th and 9th, and I also found the same material, this bastard
1302 coal and the bad condition of the coal in the No. 4 mine, so that there is no question in my mind about this bastard coal being a defect in a coal vein in this region. It is not a local bunch or pocket or anything like that; it is characteristic of the coal seam in this area.

Q. And evidently, then, the conditions which cause it are general conditions extending over this coal horizon?

A. Yes, there is no doubt about that; it is not local; it is a characteristic feature in this particular section here of that coal seam.

Q. And the materiality of it in this case would be that you would look for the same occurrence to the south there?

A. Yes, without question.

Q. Now, in No. 2 mine in the main workings, without going over them in detail, what does the mine show on the north, generally, as far as the limits of the mine, as to its being fairly good coal?

A. I think was only north in No. 2 mine on one entry and that was the 11th north entry. The coal vein exposed in north entry No. 11 contains about two feet of sandstone right in the center of the seam, which is very uniformly of that width, and very continuous, and the face of the entry at the date at which I made the examination was not out of it; at least, it still showed the sandstone.

Q. Did that seriously affect the quality of the vein there?

A. Yes, indeed; the vein was probably eight feet all told, with two feet of sandstone in the center.

Q. And is the 11th entry the bottom entry in the mine, or was it when you were there?

A. Yes, sir.

Q. What have you to say as to the condition, then, of that mine as you go down the slope to the west, on the bot-
1303 tom or along that south entry; what did you observe as to this same sandstone band?

A. Well, all the seams and all the entries south which I visited, the main slope at the bottom and the 11th north entry all contains this sandstone bed, continuous; it can be traced and shown right along. I traced it down through several rooms, from the fourth down to the sixth entry; it is absolutely continuous.

Q. Does it increase or decrease as you go down?

A. Well, it increases. Its first width on the 3rd entry going south is about six to eight inches; down on the 11th entry north it averages about eighteen to twenty-four inches.

Q. Was that disappointing, then, as you go down to the bottom level of that mine?

A. Yes, decidedly so.

Q. Now, going south in No. 2 mine, what did you observe as to any changes that occur in the vein there to the south, affecting its workability?

A. Well, going south from the slope of No. 2 mine, in the 3rd entry south, this bastard coal first comes in and down near the south face the sandstone comes in, so that you really have, not only the sandstone as a bad feature, but this two or three feet of bastard coal, and the further point about this bastard coal that I wished to give is that it is not necesarily a material which stays in any particular part of the vein or seam; sometimes it is in the center, sometimes it is on top, and when it is on top it forms a very bad roof, that is, the roof apparently been given a chance to soften and it makes a very bad roof.

Q. Where it is on top it usually forms a following roof,
1304 then?

A. Yes, those are my observations.

Q. In No. 2 there, what have you to say as to whether they have worked into the poor coal area upon the coal horizon on the south generally of No. 2 mine?

A. They have worked in all the entries into poor ground there. The coal is mixed with this bastard coal and sandstone, and it is actually unworkable.

Q. Now, how does this poor area, for instance, disclosed there, correspond or correlate with the poor, outcrop that you spoke of between the No. 4 and No. 2 mines?

A. Well, it corresponds exactly; it is directly west of the poorer portion of this outcrop observed between those two mines.

Q. Did you visit No. 4 mine? A. Yes, sir.

Q. What do the developments in No. 4 on the north show as to whether or not they have carried these workings into this same poor area?

A. I first visited the 3rd north entry in No. 4, and near the slope the coal is good, but the conditions there are similar to those on the south in No. 2 mine; the bastard coal appears in exactly the same manner, first narrow and then gradually widening toward the north, and the sandstone comes in. I have no doubt this represents the same area of poor ground or at least it represents the south end of this poor ground area shown by the workings south in No. 2, and also shown on the outcrop between those mines. Now, continuing I observed this in the 3rd entry north, also on the 4th north entry; I think that was all I went into in No. 4 mine going north, and the conditions there were practically the same, that the
1305 coal gets bad on account of sandstone and bastard coal coming in.

Q. Now, going down No. 4 mine, Mr. Sales, what do the bottom workings there show as to improvement or deterioration of the coal vein?

A. Well, down at the bottom of the slope, that is, at the bottom or near the bottom—there is some water in the slope so I did not get to the face of the slope—but just above about twenty feet from this water, there is a thickening of the sandstone, a wedged shape piece of sandstone coming into the coal from the roof. Now, then, just what effect that is going to have is very hard to say, but it makes the seam very narrow there and it does not look very favorable.

Q. You don't know just what will happen but what you cannot observe there is not favorable?

A. No, sir, it is not.

Q. Now, did you go south in No. 4 mine along any of these bottom levels, along this 5th south entry?

A. Yes, I went south on the 5th entry.

Q. What did you observe there; just give us the conditions to the face of that entry, beginning at the slope, so that we can see whether there is any improvement or not.

A. Well, near the slope the coal is good, the vein is large, but going south along the entry, I think at a point from two thousand feet from the slope, I observed a soft, clayey looking shale appearing in the roof of the seam. At first this was rather narrow, but gradually widened and caused some considerable bad roof between there and the face, and at the face it was, I think, something like three feet wide and was rather a serious matter in regard to the holding up of the roof.

Q. Now, the section at the face, section Z. that has
1306 been testified to on the exhibit—I don't recall the number, but it was section Z., wasn't it? A. Yes.

Q. What have you to say as to that vein improving or deteriorating very markedly as you go south from the point in the slope where you speak of, where you first noticed this clay seam?

A. Well, from the fact that this clay hanging wall or clay seam on the roof is gradually becoming wider and wider going south, I would naturally infer that it was going to be worse, or at least the condition of the coal seam was going to be worse toward the south; I would infer that the clay seam was going to widen naturally.

Q. And you found a very poor condition there at the face at this section Z.? A. Yes, it is bad there.

Q. How did the mine workings upon this level agree with your observation; in other words, were there any rooms south from this point about two thousand feet south that you spoke of, just approximately?

A. No; there were no rooms near the face, or in fact, back perhaps several hundred feet from the face there were no rooms.

Q. So that the actual workings bear out that conclusion?

A. Yes, they bear out my statement.

Q. Where is the point where this section Z. was taken, where you observed the last place where you could follow it to the south this poor showing—where is it with reference to the Daly hole on the surface, the place on the outcrop that showed a fairly good showing of coal in this south country?

A. Well, it is practically opposite; that is, the face of the 5th entry is slightly north of an east and west line
1307 drawn through this Daly hole.

Q. But substantially west and opposite?

A. Yes, sir.

Q. How does the showing in the 5th south entry there at those points compare with the showing upon the surface as to the vein deteriorating very badly in going down or not?

A. It is; the vein is not nearly as good in the face of the 5th entry as it is as shown in the Marcus Daly hole.

Q. And in addition you have the coming in of this poor roof? A. Yes, sir.

Q. Now, Mr. Sales, from all your observations there, what have you to say as to whether, in your opinion, there is a place south of No. 4 mine, a place anywhere opposite these lands in controversy, where a new mine could be opened or where you would advise the opening of a new mine.

A. Well, the showing is not sufficient

Q. To the Cumberland on the south, of course.

A. There is not sufficient showing at any point along this horizon to warrant the expenditure of money to develop a mine.

Q. And your underground observations confirm that conclusion?

A. Yes; that is the result or the opinion that I have formed or the conclusions that I have drawn from my examination of the surface and the underground workings.

Q. And from these observations, then, would any of this land in controversy have any value at all as a workable, coal proposition? A. No, sir, not from my observations.

Q. Can it be said, Mr. Sales, from a geological or any standpoint as far as your observations go, that any of these lands in controversy contain coal in workable quan-
1308 tities, that is, quantities sufficient to justify the necessary expenditures for explorations and to extract them?

A. No, sir. I will say positively that I cannot say that any of those lands contain coal in workable quantities.

Q. Can anything be said, Mr. Sales, from your observation, further than that, beneath these lands in controversy, there is a coal horizon or coal horizons which are coal bearing in their nature?

A. That is all that it is possible for anyone to say.

Q. That may or may not contain coal in workable quantities? A. Yes, sir.

Q. Of course, you cannot say that it does not contain coal in minute or in some quantity?

A. No, sir, I could not say, speaking from a scientific standpoint that there is not some coal beneath those lands, because we have a coal bearing measures dipping in that direction and I could not swear positively that there is no coal—I would not want to swear positively that there is no coal of any kind or size or nature beneath those lands.

Q. But the quantity cannot be even predicted?

A. No, sir, it can not.

Q. Or the quality? A. Quantity or quality.

Q. Now, Mr. Sales, did you observe the surface of that valley or the surface of the lands in controversy throughout this valley between these two ridges, to ascertain whether there were evidences there from which a geologist could say whether or not there are strike faults interrupting the veins through the valley?

A. Well, I did examine it, yes, and the facts are that
1309 the ground or the surface material is entirely made up of soil and debris washed in from the hills and decomposing rocks and disintegrating rocks in place, it is absolutely impossible for anybody to say what is beneath that land as to structure or faults or conditions, generally, affecting the underlying measures.

Q. Mr. Veatch in his testimony referred to the fact that undoubtedly there were not any strike faults having a throw

of more than one hundred feet, and made some comments upon the effect of such a throw, or the throw of a large fault in mining operations. I will ask you which would be more difficult to contend with in mining operations, a series of small faults or one of magnitude, say a hundred feet?

A. Well, my opinion would be this, that in case of a larger fault it might be possible to drive through the fault and get the vein on the opposite side and work it,—that such a thing would be possible. A more serious effect, as far as operations go, would be a series of smaller faults, simply coming in as a room started away off an entry; a small fault cutting off the seam and breaking it down a few feet, or a series of these small faults would affect very seriously the value of a coal seam, and make it a very expensive thing to operate. That condition we had up at Chestnut, Montana, exactly that same condition. There were small faults which were not visible on the surface. The structure there was somewhat similar to this. We had the synclinal basin, with the measures exposed at one side, and which could be traced along with good outcroppings of rock and absolutely no fault visible, and when we attempted to drive along the seam and work it, we found these small faults practically parallel to the measures, and sometimes striking along the seam, causing a crushing of the coal, and they were very serious, because in driving off a room we would
1310 go up a few feet, and the coal seemed to be chopped off, and possibly a few feet further, if it was not very serious, there would be another which would be serious. More than that, a displacement of that character, where you have a flat seam, running about parallel to the seam, you have a very serious displacement from that; the displacement is a great deal more serious than where you have it at right angles to the seam, and it simply brings it down a little, so a breaking down along parallel to the seam is a very serious matter in coal mining; we found it so at Chestnut.

Q. Mr. Sales, have you examined this blue print which is in evidence on complainant's case, showing the four diamond drill holes purporting to have been made by the Diamond Company?

A. Yes, sir.

Q. And introduced in evidence and referred to by Mr. Veatch in his testimony? A. Yes, sir.

Q. Now, you are acquainted with the position upon the ground of the different drill holes as shown by the maps, are you not? A. Yes, sir.

Q. Have you also particularly examined on the ground itself the location of drill hole No. 4? A. Yes, sir.

Q. Where is that, north or south there from any point that you can fix.

A. Drill hole No. 4 is in the southwest quarter of section 4, township 20 north, range 116 west.

Q. Mr. Veatch, in his testimony places that drill hole east of the outcrop of the Kemmerer coal measure there; I believe that is right? A. Yes, I heard his testimony.

1311 Q. Where is the actual location of the drill hole with reference to this outcrop of this horizon?

A. Well, the drill hole, the collar of the drill hole is roughly six hundred and fifty feet west from the outcrop of the coal seam. The collar of the drill hole is much higher, one hundred feet higher than the outcrop of the coal seam. The fact that the coal seam dips westerly toward the drill hole, it would be impossible to sink that hole without striking the coal horizon if you sunk it to a sufficient depth.

Q. Now, did you examine the outcrop to the north there, up around the location of drill hole No. 1?

A. Yes, drill hole No. 1 is located about just at the south end of the town of Frontier, the south side of it.

Q. Have you made an examination of the blue print showing sections of these diamond drill holes and the necessary data in order to correlate the veins showing in the holes, to determine the position in hole No. 4 of this main Kemmerer-Cumberland vein?

A. Yes, I have made some calculations, having the distance from the hole to the outcrop and the elevation of the collar of the hole above the outcrop and the dip of the coal seam.

Q. Mr. Sales, I believe Mr. Veatch in his testimony states that at this drill hole No. 4 the main Kemmerer-Cumberland vein is eroded away and a showing of thirty feet of mud there?

A. Yes, sir.

Q. And that the seams down below are minor seams. What have you to say from your correlation as to where that main vein is shown in that drill hole, and as to this statement about its having been eroded away, and this thirty feet of mud showing?

1312 A. Well, Mr. Veatch's statement in that regard is absolutely incorrect. From the facts there it is absolutely impossible for that coal to be up within thirty feet of the collar or near the collar of that drill hole. The roughest kind of calculation would place it from two hundred to four hundred feet below the surface, anyway, a rough guess just by looking at the ground and the location of the hole. A calculation actually made by taking the distance of the hole above the outcrop and the distance from the outcrop to the hole, will bring the seam down about three hundred and twenty-five feet, I should think, below the collar of the hole.

Q. What is the point on drill hole, section No. 4, which, in your opinion, shows the location and conditions of the Kemmerer main vein at that point?

A. Well, there is shown in that drill hole section a seam at a depth of three hundred and twenty-eight, which corresponds to my calculation as to position—as to the theoretical position of this outcropping Kemmerer-Cumberland seam. Diamond drill hole No. 4 shows two feet of coal at three hundred and three hundred and twenty-six feet, measured from the collar of the drill hole. This corresponds to my correlation from the surface of this Kemmerer-Cumberland seam.

Q. Taking the dip of the vein there, that would be about where you would expect to find it? A. Yes, sir.

Q. And is there anything else in the drill hole which could show what would probably be this main vein?

A. No, sir; there is six inches of coal shown down at three hundred and fifty-three to three hundred and fifty-three and a half feet.

1313 Q. In your opinion, then, from your observation of the ground and your correlation of these different drill holes, this two foot seam is the main vein?

A. Yes, I should so regard it.

Q. In your opinion, is the diamond drill hole deep enough to pass through the main horizon there?

A. Yes, sir, it is.

Q. Now, Mr. Sales, in your opinion, is this correlation an important question to be resolved in confirming what is shown or seen generally by these diamond drill holes?

A. Yes, I think it is, because it shows the character and nature of the Kemmerer-Cumberland seam in that particular area.

Q. If you do not correctly correlate, fairly or correctly correlate the different veins to determine their identity, of what value at all are these diamond drill sections?

A. Well, they would be of no value at all. The diamond drill holes were put down to prospect the coal seam in this particular place, and they are put down, I suppose, after some calculation, knowing about how far they ought to go to get the seam. This hole here certainly represents the coal area and represents the condition of that seam, or shows the condition of that seam at this particular point.

Q. At that point, then, the main vein has narrowed down to two feet of coal, in your opinion? A. Yes, sir.

Cross-Examination.

By Mr. Birch:

Q. You are regularly employed, I understand, by the Anaconda Company? A. By the Anaconda Company, yes, sir.

Q. Well, who is the Anaconda Copper Mining Com-
1314 pany; that is practically one of the properties of the Amalgamated Copper Company, isn't it?

A. Yes, sir.

Q. And your former employment was with the Boston & Montana Company, that is, their smelting company, is it?

A. The Boston & Montana Company is not the smelting company of the Anaconda Company.

Q. I know, but they are interested together, all one system of companies? A. This is another one of the companies.

Q. This is another one of the companies of the Amalgamated Copper Company? A. Yes, sir.

Q. That is the one for which Mr. Ramsom H. Copper is attorney? A. I don't know anything about that.

Q. You never saw this district until April?

A. Well, I stated that I saw it last fall some time, the fall of 1907.

Q. Particularly or casually?

A. Well, I came down to look over the surface of the ground.

Q. You made no particular examination of the mines then?

A. No, sir.

Q. That was after this suit was commenced, wasn't it?

A. I don't know whether it had been commenced or not; I did not know of it at that time when I was down here.

Q. You did not know anything about it? A. No, sir.

Q. Over opposite, across the valley, they have another outcrop over there, you say?

1315 A. Opposite the valley?

Q. Yes, across the valley to the west. A. Yes, sir.

Q. What do they call that now?

A. They call that the Adaville mine, where the Union Pacific worked there once, I believe, at Adaville.

Q. Did you go over there? A. Yes, sir.

Q. This time? A. No, not this or the last time.

Q. Are there any operating mines over there?

A. No, sir, there were no mines in operation at that time.

Q. Are there now? A. Not that I know of.

Q. You don't know whether there are or not?

A. No, sir.

Q. Does the coal outcrop over there just the same as it does on this side?

A. Well, I did not see that particular formation excepting at Adaville. There is a tunnel there, with a vein in it, that is all. I did not make any examination.

Q. And you don't know very much about that?

A. Not very much, no.

Q. You heard the questions I asked this morinng of Dr. Talmage? A. I heard some of them.

Q. On cross-examination?

A. I heard some of them, I believe.

Q. I suppose that your testimony in chief has been practically along parallel lines to the others, and your conclusions, if asked the same questions, would be substantially the
1316 same as theirs on cross-examination?

Mr. Evans: I object to this as not proper. Of course, I commend your attempt to shorten the matter, but I do think this is hardly fair to lump a question to the witness in that way. You covered a good deal of ground with the Doctor and different phrases of the matter and that is hardly a fair question.

Mr. Birch: Well, I don't know that I will ask any more questions.

(Witness excused.)

Whereupon further hearing was adjourned until 1 P. M.
1317 Friday, April 24th, 1908, 1-15 P. M.

Hearing resumed pursuant to adjournment.

Frederick W. C. Whyte, after being duly sworn as a witness on behalf of defendant, testified as follows:

Direct Examination

By Mr. Evans:

Q. Give your name in full.

A. Frederick W. C. Whyte.

Q. Your residence and occupation.

A. My residence is in Anaconda; my occupation is manager of the Diamond Coal & Coke Company and other mines in Montana belonging to the Anaconda Copper Mining Company and the Washoe Copper Company.

Q. Are you an engineer, Mr. Whyte?

A. I served a five year apprenticeship in Glasgow, Scotland, with a firm of civil and mining engineers, which is a form of training in that country, from 1878 to 1883. I have been engaged more or less in engineering work ever since.

Q. What particular training, before you entered upon actual work in this country, had you had in coal mining or along coal mining lines?

A. The firm with which I served my apprenticeship termed themselves civil and mining engineers. The bulk of their work as mining work, and during the five years of my apprenticeship and three years after the termination of my apprentice-

ship that I worked with them in the capacity of assistant, the greater part of my time was taken up around the coal mines in Scotland, surveying and preparing reports, etc. At
1318 the same time, rather, during the latter years, I was preparing myself to qualify as a collier and manager. I might say that in that country that before one could hold a position of collier and manager, they required a certificate, and I was studying and taking classes with a view of passing the examination for collier and manager. I did not actually take the examination because I took a sudden notion that I wanted a little larger field, so I jumped up and came to this country in 1887, so I never completed my studies, but I was practically on the verge of completing the examination when I left.

Q. The first few years that you came to this country you spent in general engineering work, didn't you?

A. The first seven years after coming to this country I was engaged, principally, in civil engineering work, railroad work particularly. I did some prospecting in a quartz way, but my work generally was railroad engineering.

Q. When did you first take up the coal mining work?

A. In 1895.

Q. With what companies and what properties?

A. I went to Belt along in 1895 as engineer for the coal department of the Anaconda Copper Mining Company. At that time it was the Castle Coal & Coke Company, but later the Anaconda Copper Mining Company, and in 1896, in the fall, I was made manager of that department on the resignation of the incumbent at that time.

Q. Now, when were you first connected with the Diamond Coal & Coke Company in any capacity?

A. My first connection with the Diamond Coal & Coke Company in any capacity was in July, 1899.

1319 Q. And in what capacity did you engage with that company then?

A. I was appointed manager of the Diamond Coal & Coke Company at that time.

Q. And have been manager continuously since?

A. Yes, sir.

Q. And you also have had under your charge the other coal properties in Montana of these mining companies?

A. I still hold the position as manager at Belt, and since that time the Washoe Copper Company has engaged in coal mining and I hold the position of manager of the coal department of the Washoe Company.

Q. Did you go to Diamondville before you became manager in 1899, and if so, when?

A. I made two visits to Diamondville that I remember prior to that, one in the fall of 1897 some time and the other about March, 1898.

Q. Now, the time you came down in March, 1898, who was the superintendent or executive man in charge of the Diamond operations?

A. The superintendent at that time was Mr. Sharp, Joe Sharp.

Q. You knew Mr. Henry Burrell, did you not, who was at that time connected with the company?

A. I knew Mr. Burrell well.

Q. Was he connected with the company at that time, in 1898?

A. In the spring of 1898; not with the Diamond Coal & Coke Company, no.

Q. When did he become connected with them?

A. He became first connected officially with the Diamond Coal & Coke Company when the interest was transferred
1320 on the 1st of July, 1898.

Q. Now, you know Mr. Thomas Snedden, the present superintendent, of course? A. Yes, sir.

Q. Was he connected with the Diamond Coal & Coke Company in any capacity at the time of your visit in 1898?

A. In the spring of 1898 Mr. Snedden was working for no one; he was out of a position.

Q. And was until what time?

A. I assume that he resumed his position under Mr. Burrell when he took charge on the 1st of July, 1898; that is my recollection now.

Q. And how long was Mr. Burrell the superintendent of the company or the executive man there?

A. Until July, 1899, when I went down there.

Q. Mr. Snedden's connection while Mr. Burrell was there as superintendent was what, prior to July, 1899?

A. He was mine foreman of the No. 1 mine.

Q. Is that what you call pit boss?

A. Practically the same, yes, sir.

Q. He was not an executive man; he looked after the mining underground? A. That is all.

Q. When you went there in July, 1899, what became of Mr. Burrell, as to his connection with the company?

A. Mr. Burrell severed his connection with the company very summarily about that time; in fact, when I was ordered to go to Diamondville and take charge, after arriving there, to my surprise I found that Mr. Burrell had not been notified

of the fact that he was being replaced. He came there a few days afterwards and learned for the first time that I
1321 gone there to take his place?

Q. What did he do then?

A. He pulled up stakes, as you might say, and I don't think I have seen him from that day to this. I have heard of him, but I don't remember having met him practically since that day.

Q. Did you have any conversation or intercourse with him after you went there, up to the time he left?

A. Oh, I spoke to him once or twice, but in a business way only. He was naturally feeling disgruntled and sore about the way he had been treated, and resented my being there. Prior to that time our feelings had been none of the most friendly; we never did hitch, and the situation arising at that time intensified the feeling, and I might say that as far as Mr. Burrell is concerned I did not have five minutes conversation on business lines with him at that time or afterwards; he simply got up and left everything there just as it was, without telling me or explaining anything to me whatever.

Q. Now, when did Mr. Snedden first become superintendent of the company under you, that is, the executive man?

A. Well, after assuming charge of the property in July, 1899, I made an effort for quite a while to spend a large proportion of my time at the property and handled it personally; but I gradually awakened to the fact that it was an impossibility; the other interests at Belt and other places were calling for too much of my time, and I gradually left Mr. Snedden assume charge, a little at a time, and gradually increasing in authority, so that I could hardly say definitely when he became actual superintendent; there was really only No. 1 mine then.

Q. Would you say that he was superintendent in the
1322 month of July, 1899?

A. In July, 1899, he was not superintendent.

Q. Either de facto or with the title?

A. In neither manner.

Q. When did you first hear, Mr. Whyte, of any claims by Thompson or Lees or any other man or any controversy based on these lands in controversy in this action?

A. I should say that within two weeks after assuming charge I was visited by either Thompson or Lees or both. I had so many meetings with them after that I cannot say which one it was at that particular time. In that interview they began to make claims, from that time on I had several meetings every now and again with different parties.

Q. Prior to this hearing about these claims, a couple weeks after you had come to Diamondville in 1899, had you ever heard about these lands? A. In no respect.

Q. Was there anything on the company's records showing anything pertaining to the acquiring of these lands or the purchase of them? A. Nothing that I could ever find.

Q. Now, please state whether or not at that time the matter as to these lands was a private matter of Mr. Burrell or a company matter, from the evidence that you have been able to get and to your knowledge?

A. Every evidence I have would lead me to the belief that it was a private matter with Mr. Burrell. Thompson and Lees claimed Mr. Burrell had made agreements with them or whatever it was they were claiming at the time, and though they intimated that in a manner the Diamond Coal & Coke Company was interested in the matter, they always claimed Mr. Burrell as the authority personally, and later on I know
1323 of my personal knowledge that Mr. Burrell claimed a large sum of money from the company for land acquisitions or attempted acquisitions or whatever you might call it at that time.

Q. After the deeds had been made to the company, Burrell put in a large claim as consideration for these transfers?

A. He put in a large claim against the company.

Q. And as I understood you to state—if I did not I want you to correct me—he claimed that it did not come within his capacity or salary as superintendent?

A. He claimed it was an outside matter altogether with him.

Q. Now, at the time you went there what conditions were the title to these lands in, as to whether or not the relinquishments had been made and these scrip entries put upon the land; I refer now to July, 1899, when you went down there.

A. Well, relinquishments had been made and the land covered with scrip as far as I could possibly remember.

Q. Did you have anything to do at all with obtaining any of these relinquishments, Mr. Whyte?

A. Nothing whatever.

Q. Now, you spoke a few minutes ago about the transfer of the property in July, 1898. What did you refer to there? The corporation is the same now as prior to 1898, is it not, the Diamond Coal & Coke Company?

A. The corporation has never been changed to my knowledge.

Q. It was simply a transfer of the stock?

A. A transfer of the ownership of the stock.

Q. Who became the purchasers?

A. The stock, as I understood it, was purchased by Mr. Daly and Mr. Haggin and Mr. Donahoe.

Q. And simply as individuals?

1324 A. As individuals, yes; that was my understanding.

Q. Who was the actual man of the trio in the West here?

A. Mr. Daly was really the head, but at that time Mr. Donahoe was the actual man attending to the details. Mr. Haggin lives in the East, and he never was seen out here as far as I ever knew.

Q. They were also large holders in these mining companies, were they not, particularly, the Anaconda Company?

A. Mr. Daly was one of the large owners of the Anaconda Company and Mr. Haggin.

Q. Do you know, Mr. Whyte, whether it was their practice in Montana to take their assets derived from companies like the Anaconda Company and buy other mining property and form new companies upon that?

A. Yes, that was Mr. Daly's plan all the time.

Q. To branch out individually in that way?

A. To branch out in individual ownership.

Q. Who furnished this scrip that was put upon this land?

A. Mr. Donahoe, I understand, procured the scrip; I have always understood so.

Q. The same Donahoe, one of the three principal owners?

A. The same Mr. Donahoe.

Q. You spoke about Lees and some of these men making claims after you went down there, Mr. Whyte. Did you talk about a compromise of those claims with them or did you cause it to be done finally?

A. I did personally make compromise settlements with the majority of them. In one or two instances it may have been done by a third party under my direction, but I aimed to eliminate all the claims against the Diamond Coal & Coke Company as incurred by Henry Burrell in his management.

1325 Q. Now, how were these claims disposed of, without covering too much time; were they compromised as to the larger claims against the company or were they definite sums for some definite service rendered?

A. They were all in the nature of a compromise. Thompson and Lees were claiming much larger sums than what I finally settled with them for.

Q. Did you have anything to do with inducing or making a contract to induce any of them to relinquish or do anything in regard to these lands? A. No, sir.

Q. And were they paid for any such act? A. No, sir.

Q. Now, later, when the company purchased and took these lands, what consideration was paid, for instance, to Mr. Snedden, for the deed made by him?

A. My recollection is that Mr. Snedden was paid a thousand dollars when he made the deed.

Q. And Mr. Burrell, was he paid something on this claim that he had asserted?

A. That was handled from headquarters, but I was informed at the time that he had been paid, my recollection is, about seven thousand dollars; I would not be sure about that.

Q. That was for that and other matters, was it not?

A. That and other matters.

Q. But you do know that Burrell was paid some consideration in connection with it? A. I know he was paid money.

Q. Mr. Whyte, you were present when Mr. James Lees testified about some conversation with you about relinquishments on these lands?

1326 A. Mr. Lees? Mr. Aitkin, you mean.

Q. Mr. Thomas Aitkin, I mean, yes; at the former hearing in this case? A. Yes, sir.

Q. Did you have any conversation with Mr. Tom Aitkin, to the effect which he testified here, in June 1899 or at any time, or any other conversation with Thomas Aitkin in regard to his relinquishing title to land?

A. I have no recollection of ever having met Mr. Aitkin prior to seeing him here. He was a total stranger to me, and besides that, I was not in Diamondville in June, 1899, so I could not have had the conversation testified to.

Q. Did you ever have any such conversation?

A. I never had any such conversation with Mr. Aitkin.

Q. Mr. Whyte, at the time these lands were acquired or purchased by the Diamondville Company, what was and what is now desirable for the Diamond Coal & Coke Company or any other coal company in the way of acquisition of lands adjoining their coal lands for other purposes, and what are those purposes?

A. Generally speaking in coal mining on a large scale, it is a very important feature to have as much of the surrounding lands as possible, for a variety of reasons. You have necessarily surface work in connection with the mines, townsites, railroads, water lines, water supply lines, I might make it, and at the same time it is not desirable to have others located immediately adjacent to the scene of your operations; so personally I have always made it a practice to acquire more land than that covered by the actual coal lands, for those reasons; I deem it very important.

Q. Can you give us a common instance of the acquiring of other lands adjacent to quantities of coal lands for the
1327 purposes in connection with it, as you have stated?

A. At Diamondville just now, we have the townsite No. 4 on parts of the land in question.

Q. On part of section 20? A. Part of section 20.

Q. You mean Glencoe? A. Glencoe.

Q. Part of it running over on part of section 20, which is in controversy here?

A. Yes, sir. At one of the recent properties which I have developed in Montana, at Storrs, Montana, we bought an area of ranch land which we absolutely knew contained no coal; we bought an area approximately nearly as large as our coal land area, simply to provide ourselves with the necessary surface for townsite, water works, coal washer, water supply, railroad tracks, and also as I stated, to keep others away from us and have full control of the territory embraced by our operations. There was absolutely no coal under the land in question.

Q. Now, before I ask you about the mines, there is an incidental question or two. As manager of these properties, of course, you are familiar with the underground workings, generally? A. Yes, sir.

Q. Have you examined the copies of the working maps of the mines which were used by our professional witnesses, Mr. Forrester, Dr. Talmage and Mr. Hopkins, the copies marked defendant's exhibits 8 and 15; you have examined those, haven't you?

A. I have examined the maps of the mines as used, yes, sir; I cannot say without looking at them what numbers they bear.

Q. The maps that were used of No. 2 and No. 4 mine workings? A. Yes, sir.

1328 Q. And can you say whether or not these maps substantially correctly show what they purport to show?

A. They are copies of the mine maps of these particular mines.

Q. And in your opinion correctly or substantially correctly show what they purport to show? A. Yes, sir.

Mr. Evans: Now, I believe these maps were only offered for identification. I now offer them in evidence, as defendant's exhibits Nos. 8 and 15.

Mr. Birch: We object to them as incompetent, immaterial and irrelevant.

Maps admitted in evidence as defendant's exhibits Nos. 8 and 15.

Mr. Evans: We also offer the map marked defendant's exhibit No. 1 for identification, being the map used on the cross-examination of complainant's witnesses and necessary to make intelligible their testimony, including Mr. Veatch, who made certain marks upon the map in going through it. It is merely an outcrop map, and practically the same as complainant's exhibit No. 280.

Map referred to, admitted in evidence without objection as defendant's exhibit No. 1

Q. Mr. Whyte, without going into it in detail, you stated that you were familiar with the three mines of the Diamondville Company, No. 1, No. 2 and No. 4. State the con-
1329 dition of each of those mines at the present date, as to whether it is depreciated from the showing at the time and after the mines were opened. Of course, I don't mean from the fact that so much coal has been taken out, which depreciates any mine, but the comparative condition of the coal showing on the strike, and also on the dip going down.

A. Generally speaking, taking all three mines, one striking feature of the mines as a whole is this, that in no instance has the coal to the dip held in quality; in other words, it has steadily depreciated in quality. The coal from our last workings in each of the mines is of poorer grade than it was at the outcrop and in the upper workings. Added to the quality of the coal, the working conditions in each case have become very much worse; the roof is poorer, and we had increased difficulties in each mine in mining to the deep. No. 1 slope we have carried a long distance beyond the real workable limit, and it finally had to be abandoned; the cost was becoming excessive, and we were getting absolutely no encouragement; the further we went the worse it got, so that today the lower one-quarter, if not one-third, of No. 1 slope is abandoned and filled with water and never will be worked.

Q. Then, as I understand you, in No. 1, you have passed by a considerable distance the working limit of that mine in depth?

A. Yes, by a very considerable distance. We are holding the water below the 11th level, with the hope of possibly being able to take out some of the coal, but the fact remains that from the 9th level down we have had very great difficulty in holding the level; as was testified to by other witnesses the 10th level is closed as tight as can be, and we are reopening it as far as possible to see how many of the pillars we can reach
and extract. It is just as expensive, and more expen-
1330 sive, really, than driving the entry in the first place.

Q. Can you give us an approximate idea of the thickness of the overburden, that is, the vertical distance to the

surface at this point in the mine; I would like to have it right in connection with your statement here; just approximate it.

A. Approximately at the 10th level it is about seven hundred feet; seven hundred to seven hundred and fifty feet.

Q. Now, how is it in depth; what do the deep developments show in regard to difficulties in going further in these other two mines, No. 2 and No. 4?

A. No. 2 slope has reached practically the same condition; I do not think that we will drive No. 2 slope a foot further than it is at present. Mr. Snedden and I have discussed the deep proposition several times, and we have both practically agreed that the conditions at the face of the three slopes look like an area, a connected area of unworkable condition; they are very similar in many respects, and we have the impression that there is a stretch to the deep, lying right from No. 1 mine south to No. 4 mine, and south of there approaching the surface, of unworkable coal, beyond which we have no possible chance to penetrate.

Q. Now, what would be the thickness of the overburden there at No. 2 at that point; just approximate it. Of course, it can be measured from the evidence, I suppose.

A. At No. 2 I think possibly we have reached a thousand feet of overburden at the face of the slope.

Q. Do your rooms go that far?

A. No, we have no rooms down there; that is simply prospecting work, the foot of the slope, pushing ahead to find out what is there.

1331 Q. Have you passed the available territory there and gone deeper with your slope in your prospecting, past the workable territory?

A. Judging from the present conditions I do not think that we will work coal at that depth in No. 2 mine.

Q. How is your showing at the deep in No. 4 mine as to retrograding or getting poorer?

A. No. 4 slope, of course, is not so deep, and the conditions are not so aggravated yet, but it has all the ear marks of repeating the experience in No. 1 and No. 2; it is deteriorating very much.

Q. Now, on the north side, going north in No. 1 mine, have you abandoned your work in that direction?

A. The north side of No. 1 mine is abandoned entirely, and has been for years.

Q. Why?

A. Each level got to the stage where we couldn't work the coal there at a profit or to produce a marketable coal or a coal that we could dispose of, owing to the splitting up of the vein and the decrease in size of the various benches present, and the increase in the bands of interstratified clay and rocks,

so that we had to abandon that side of the mine entirely. Before finally abandoning it, I might say for your information that we went to the trouble of getting a diamond drill from Montana in order to satisfy ourselves thoroughly as to whether it was any use to prospect further, and we got the diamond drill and drilled what is known as hole No. 1 on the exhibit showing the drill holes, some two thousand feet, I should say, approximately north of the most northerly workings in No. 1 mine. The results of that drilling proved to us con-
1332 clusively that it was hopeless to go any further, and we abandoned the north side of No. 1 mine.

Q. Have the Kemmerer people encountered the same kind of ground going south?

A. I understand so.

Q. Now, I believe you heard Mr. Veatch's statement that one of his assistants told him that the north part there had been abandoned, or part of it, because of the letting down of the roof and the creek coming in?

A. Yes, sir.

Q. Was any such cause responsible in any way for your closing down the north side?

A. Absolutely nothing of the kind.

Q. Was it caused in any way by any improper mining operations?

A. No, sir; it was caused entirely by the unworkable condition of the seam, shown by our further development.

Q. Mr. Whyte, how, if at all, are the operators, the mining company or companies which control the Diamond Company, in a different position from coal operators who are supplying the general market, in their reason for and necessity for operating these coal mines at Diamondville?

A. In this respect they are different from ordinary coal operaters, and so far as their business is in the mining of metallic ores and the smelting and reduction, principally of copper. The coal department, as well as the Diamond Coal & Coke Company, are only side issues; they are necessary, because by possessing them they can assure themselves of a supply of fuel independent of the demands of the market or any other occurences that might tend to shut off the supply, and the understanding is that, no matter the cost, the smelters
1333 at Anaconda and Great Falls and the mines at Butte must be kept supplied with coal, so that their operations can be kept continuous. As indicative of this, I might state that our coal mine at Belt, being an old mine and very expensive to work, and getting more expensive every year, is actually today being operated at a loss, you might say, continuously, but it is kept in operation because, as long as the Belt mine is there the parent company feels sure that it will

get coal and be supplied with coal. Of course, the loss is simply equivalent to paying more for the coal one way or the other, than they would in the open market; they pay the market price in that particular case, and yet it is not sufficient; they have got to stand a loss besides.

Q. In your opinion, if the Diamond Coal & Coke Company were operated for the same reason and in the same situation as the independent companies operating in this section [off] the West and relying on the open and general market for the disposition of their output, would you be in a position to successfully compete with these other operators?

A. Unquestionably not. The Diamond mines today could not be run if they had to depend on the commercial market.

Q. What mines of the Diamond Company produce coal of a quality which you could place upon the open market and compete with the other coals produced in this section of the country?

A. No. 1 mine is the only mine we have that can produce coal that will compete with our competitors in the market, and that I would qualify to the extent that that is only from the upper workings or upper levels. The coal that was produced from the lower levels of No. 1 mine, the levels which are now under water, had to be segregated and loaded entirely for company use; it could not be put on the open market. No. 2 mine has occasionally sold coal in the markets at
1334 times of great dearth of coal supply, such as last fall before the slump came, but as a rule No. 2 mine coal cannot be placed on the general market. No. 4 mine coal cannot be placed on the market under any consideration, unless, I will qualify, under conditions where people have to get some kind of coal and are willing to burn anything; but as long as other coal is available, No. 4 coal cannot be on the market at all, and is shipped exclusively to the works in Anaconda and Butte.

Q. From your knowledge of the Diamondville properties, what would you say was the economic thickness of coal there which could be commercially profitably mined, giving the minimum thickness and the conditions under which it could be mined.

A. On the dip obtaining in that field, the vein must of necessity, for economic working, be over six feet in thickness, owing to the fact that the dip of the formation renders that more than six feet necessary for the haulage on the level, which are necessary, the main haulage route. By the time the track is leveled up and the road, the floor is leveled up by the track, it reduces the height of the lower sides so much that the cars or horses or any other form of locomotion, have not head room sufficient. I do not think that any seam, with less than six

feet of clean coal, and that would have to have accompanying conditions first class in every respect, could be worked at anything approaching a profit in the Diamondville fields. If the working conditions were worse, poor roof or heaving floors, the coal would have to be correspondingly thicker to offset the extra cost.

Q. If you had a following roof, could you work a six foot vein at a profit, say in No. 4 mine?

1335 A. Not with any such followings as we have down there in that field, whereas it is easily seen that a one foot following is worse over six feet of coal than it would be over twelve feet of coal; the intermixture is correspondingly less and the effect on the coal in the larger seams than it would be in the smaller seams.

Q. Can you give the approximate total investment of the Diamond Company in that field, in relation to the tonnage.

A. The total investment?

Q. Yes, including prospecting, of course.

A. I don't think I could give it offhand, without making a wild guess at it, because it is split up on the books in so many different places. Approximately I should say the total investment must be somewhere between a million and a quarter and a million and a half, and that may be considerably under for all I can say now.

Q. Mr. Whyte, you are familiar, or have some knowledge of the state law of Wyoming, passed I believe in 1903, providing for the assessment of proven mining ground, providing for taxation of coal mining ground by assessing the net proceeds of that ground and exempting from local taxation as coal lands the lands that are assessed in that way, have you not?

A. Yes, sir.

Q. You have seen the two blue prints which Mr. Veatch produced and which were introduced upon his examination, marked complainant's exhibits Nos. 308 and 309, 308 being the blue print purporting to refer to mines Nos. 1 and 2 of the Diamond Company and exhibit 309 referring to mine No. 4 of that company. You have seen those, have you?

A. You mean the blue prints showing projected work from those mines?

1336 Q. Yes. A. Yes, sir, I saw them.

Q. What you call the net proceeds blue print?

A. Yes, sir.

Q. Do you know and can you state how those blue prints came to be prepared and for what purpose and what they were used for?

A. At the time this law became effective, the law providing for the taxation of net proceeds of mines a meeting was called

at Cheyenne by the State Board of Equalization to determine and outline the details regarding the operation of the law. At the time I was otherwise engaged and could not attend, and Mr. Snedden went in my stead. After his return he notified me regarding the decisions arrived at, one of which was that lands adjacent to any operating mine which could under any possibility be worked from that mine, would be exempted from taxation by the State Board of Equalization. They also asked that maps be furnished, showing the lands which each company would claim were exempt under the law or under that interpretation of the law. At that time it so happened that we had no engineer; our engineer had left us and gone into business for himself in Colorado, and Mr. Snedden wanted to know what to do. I wrote to him to engage Mr. Newbrough of Evanston to prepare the necessary maps and furnish them as requested to the State Board of Equalization. Mr. Newbrough drew up the maps, and as corroborative I might say that the maps are dated March 15th, and I find in my files in Diamondville a letter written by Mr. Snedden on March 16th to the State Board of Equalization, sending the maps according to their request and apologizing for the delay, owing to having to go outside and get an outside engineer to make them.

Those maps were made exclusively for that purpose and
1337 have been used exclusively for that purpose. I do not think that, since seeing those maps on my next visit to Diamondville—I don't think that they used those maps more than once or have occasion to refer to them more than once, and that was in making up the assessment statement for the following year or one of the following years; they have been used exclusively for that purpose and were never meant for anything else.

Q. Were they made, then, or have they ever been used as working maps of the company in any sense?

A. No, sir; they have never been used in that way.

Q. Were they made for the purpose, or have they ever been used, either of these maps, for the purpose of indicating your future work or development or in laying [our] doing any work or development for the company? A. No, sir.

Q. Do your workings there show now that you could work anything like the limits of the ground shown upon these maps, either north or south of the levels or to the west in depth on the dip?

A. Our workings all prove conclusively that it is impossible to work to the dip to any such distance as indicated on that map; in fact, our developments show the projected lines of that map are absurd.

Q. How did the lines like entry lines or level lines come to be put on; did you state that? I didn't quite catch in re-

gard to what Mr. Newbrough did. Did you state how those came to be put on those maps?

A. I asked Mr. Sneddon about it when I saw the maps, what his idea was, and he disclaimed all responsibility. As far as I could find out, it was an idea of Mr. Newbrough's, simply to make the map a little more explicit of his idea.

1338 Q. To make it look more like a map?

A. To make it look more plausible, you might say.

Q. Do you know what has been the practice and whether the other mining companies in that locality, the Kemmerer-Cumberland, do the same thing, that is, exempted from taxation lands that were away beyond what they could possibly work in their mining operations?

A. I understand they have all done it; that was the contention at the time, and a compromise was made.

Q. And was it satisfactory to the tax authorities?

A. The State Board of Equalization had made the agreement before that time to prepare it, and they have accepted it ever since.

Q. Do you know the diamond drill that was used to drill the four holes shown by the blue print produced by Veatch and which has been referred to here, showing the four drill hole sections? A. Yes, sir.

Q. What was the diameter of that machine; what size was it?

A. Either an inch and an eighth or an inch and a half; I think an inch and an eighth. It was a small Bullock drill, positive feed.

Q. Is that drill or a drill of that size or character reliable in indicating the thickness of coal and the conditions underground and if you can illustrate with this same machine, please do it and make it brief.

A. The coal department at Belt had occasion to buy a diamond drill at one time for coal boring, and we bought a Sullivan end drill, which takes about two or two and a half inch core. We did considerable drilling with that at Belt, and got fairly satisfactory results, though somewhat expen-

1339 sive, owing to the size of the drill hole. At one stage Mr. Burrell, previously mentioned, who was operating or contemplating operating in another field at Montana, wished a diamond drill, and we sent our drill, but it was too large and too costly, he thought, and as a result he exchanged it on the way at Butte for this same Bullock drill which did the drilling at Diamondville. This drill was used at Carbonade in Montana to put down a hole some seven hundred and fifty feet in depth. The drill record of that hole, of which I have seen and which I have a map, showed five feet of coal. On the strength of that drill hole Mr. Burrell proceeded to sink a

shaft that was something like nine hundred feet in depth. He sunk it at some distance from the drill hole, and for three or four years thereafter they exploited that field from the bottom of this shaft, and to my certain knowledge they never found to exceed three and a half feet of coal. The vein was over that in thickness; the vein would average from five to six feet in thickness, but nearly one-half of it was bone; in every instance, and I have taken many sections in the mines, almost to the extent of fifty per cent was bone and dark slate, which this diamond drill record evidently showed as coal. That is one result of the same drill which put down these holes at Diamondville. So far as the diamond drill holes are concerned, I never saw a coal core from any of the holes. The only record that I have is the record made by the drillers, as to what he thought the drill was cutting in. The water which is circulated through the diamond drill down in the pipes and up the outside proves up the cuttings, and from these cuttings the average driller estimates the form of the material he is cutting at that particular moment. Under proper conditions this should be verified later by the cores obtained, but
1340 where there are no cores obtained he has nothing but the cuttings to go by, and he showed coal, as he thought, in those holes. Whether it was coal or bone or slate, I personally would not state from the record. I should expect to find, if I should sink at any point of these holes, more or less bone and slate forming part of the matter recorded as coal by the drill hole.

Q. And you might, with this Bullock drill that drilled these holes, that has been talked about in this case—you might know something about the cuttings in the holes?

A. Not in coal; we have got several rock cores, but no coal cores. The coal cores would come up in little short sections, an inch and a half or two inches long, a dozen of them at a time, broken and rubbed together.

Cross-examination waived.

(Witness excused.)

1341 Robert Forrester, recalled on behalf of defendant:

Direct Examination

By Mr. Kelley:

Q. Mr. Forrester, when you were on the stand you were interrogated by Judge Birch with reference to a conversation, which the inference was that you had with Major Foote concerning the nature of these lands or concerning what you had told what Tom Snedden had told you. Do you remember?

A. Yes, sir.

Q. Have you since you left the stand had a conversation with Major Foote concerning this alleged conversation?

A. Yes, sir.

Q. What was it?

A. During one of our recesses on the 22nd of this month, in the adjoining room here, Mr. Foote came into the room while I was there and I said to him: "Mr. Foote, honestly, as man to man, will you tell me when that conversation took place between yourself and me and the Register, so that I can look up my diary and produce it in court if necessary." Mr. Foote said that he could not tell me within four years; he said: "I cannot say whether you did tell me." And Mr. Foote said further that he had a long talk with Mr. Gridley, and that Gridley did not tell him. I said to Mr. Foote: "It could not be me, because I did not even know about Snedden prospecting or placing any scrip on the land in question until told by you and Mr. Burke and Mr. Wallace when I was subpoenaed as a witness in this case by the Government and appeared
1342 here on January 23rd, 1908, and further I don't remember even having been in Evanston since 1897." Mr. Foote then reiterated the statement that he could not say that I ever did tell him.

Q. Foote told you that Gridley told him, Foote, that it was not himself, Gridley, who had the conversation with him?

A. Yes, sir.

Q. And that he, Foote, did not know that it was you?

A. Yes, sir, that is right.

Cross-examination waived.

(Witness excused.)

1343 Mr. Evans: If the Court please, defendant at this time have presented the evidence that they are in a position to present at this hearing. I will say, however, that we have other material evidence that we would like to introduce, but that it is not available at this time. One of our witnesses met with an accident at Colville and another is in Mexico and it would necessitate another hearing before we conclude our testimony. It is particularly inconvenient, however, for Mr. Kelley and myself to come to Wyoming for another hearing between now and the time that our time expires, so that, if the Government will introduce their rebuttal at this time and conclude their case, we will forego the putting in of further testimony and will close now; otherwise we will simply ask for an adjournment. We want this other testimony, and will probably put it in if the matter goes over so that we must come back to Wyoming anyway, but if the Government will conclude now, we will also conclude, and of course, we are

perfectly ready to make a stipulation regarding the putting in of the statistics which was discussed yesterday.

1344 Major Frank Foote, recalled on behalf of complainant, in rebuttal:

Direct Examination

By Mr. Birch:

Q. Major Foote, you know Robert Forrester?

A. Yes, sir.

Q. Do you recall having any conversation with him on some occasion between 1901 and 1904, concerning the lands of the Diamond Coal & Coke Company in this county?

Mr. Evans: We object to this as immaterial and irrelevant, and for the further reason that it is evidently introduced for the purpose of attempting to impeach the testimony of Mr. Forrester upon an entirely immaterial and irrelevant matter, not going to any material or relevant evidence given by the witness, Forrester.

Q. Will you answer now, Major?

A. I think so, yes, sir.

Mr. Kelley: We move to strike out the answer of the witness as to what he thinks; the question calls for a positive reply.

Mr. Birch: The objection to the word "Think"—is of course a matter that calls for definite information.

Q. Will you say whether you can properly and truthfully alter your answer?

1345 A. Well, sir, I honestly believe that Mr. Forrester is the gentleman that I had the conversation with in the office here; I have thought so all these years and I still think so, and the only thing that would change me in the name would be if Mr. Kingston said Mr. Forrester was not the man, then I should say that I was mistaken.

Q. In other words, to the best of your recollection you did have such a conversation? A. Yes, sir.

Q. Now, in that conversation did Mr. Forrester state to you that to his knowledge Thomas Snedden had investigated and tested all of the land in this county in which they were interested or this region in which they were interested in the procuring of that for coal purpose. Do you get the question now, Major Foote?

A. Yes, sir. My recollection is—

Mr. Evans: We make the same objection as to the previous question.

Mr. Birch: Let it be taken subject to the same objection.

Q. You can answer that first yes or no, and then explain further if you desire.

A. Yes, sir.

Q. Now, you can explain.

A. My recollection is that during this conversation Mr. Forrester, or the gentleman who was there that I think was him, I did not know him very well at the time; I never had met him but once before I think—said that he knew of his own knowledge that Mr. Snedden had tested every piece
1346 of land on which they had made scrip entries for coal. I know Mr. Kingston and I talked about it two or three times afterwards, and from that day to this—

Mr. Kelley: I dont care anything about that.

Q. Never mind about that.

A. All right, sir.

Q. Have you made all the explanation that you desire to, Major?

A. Why, I think so; only I dont want to seem to wrong Mr. Forrester in any way at all, but as I started to say, I have had him fixed in my mind all these years and there is nothing to change it up to the present time.

Q. Mr. Forrester has just testified here a moment ago that he had a conversation with you on the 22nd in the adjoining room to that which we are now sitting in, and that you stated to him, as I understand it in substance and effect, that you did not say so, that is, that you did not make this statement?

A. Oh, I think he is mistaken.

Mr. Kelley: That is not it; it was that Major Foote did not know that Mr. Forrester was the man who had this conversation with him, and that he had had a talk with Mr. Gridley, and Gridley said it was not he.

The Witness: May I further explain for a moment?

Q. Yes, go ahead.

1347 A. When Mr. Forrester was up here before, we talked it over and he said that he thought that I must have taken Mr. Gridley for him. Since that time I met Mr. Gridley in Salt Lake and talked the matter over with him, and I am satisfied that it was not Mr. Gridley.

Q. Now, then, what I want to get at is, will you state what the substance or effect or language, if you can, of the con-

versation which you had with Mr. Forrester in the adjoining room on the 22nd, was; that would be Wednesday.

A. That is the day that I came back. We had a conversation there, but I don't remember the substance of it now. He tried to explain to me, I know, that it could not have been he, because he was not here and never was in the office, and of course, he may be right. I will not swear positively that he is not right, but as I say, I have had Mr. Forrester fixed in my mind all these years, and no one else. If Mr. Kingston could be gotten and should say that Mr. Forrester is not the man, then I would say that I am mistaken, but until then I do not see how I can.

Q. To the best of your recollection?

A. To the best of my recollection, Mr. Forrester is the man.

Cross-Examination

By Mr. Kelley:

Q. You are not sure enough about this matter, as a matter of fact, frankly to say that when Mr. Forrester goes on the stand and takes an oath that he was not in Evanston during this period that is mentioned, and that he never had any such conversation with you, that he is testifying falsely about the matter?

A. No, sir, I would not want to do that; I do not want
1348 to do that at all.

Q. That is the purpose for which you were to put on the stand to impeach his evidence? A. Yes, sir.

Q. You don't mean to do that, further than to say that it is your impression at this time—

A. Well, I have explained myself as completely as I know how.

Q. Further than to say—I want you to be right on the record—that it is your impression at this time that you had this conversation with Forrester; that is about the way it is?

A. Yes, sir.

Q. Now, Mr. Foote, in this conversation on the 22nd with Forrester, as you say, he explained to you that he could not be the man because he did not believe he was here?

A. He was not here and he had not been here.

Q. And didn't you at that time tell Forrester that you were not positively sure that he was the man?

A. Well, I have practically said the same thing here.

Q. And you did say so then?

A. I think so, in my own mind.

Q. You told the Government counsel about this matter, of course, voluntarily in the first instance?

A. Oh, I think not; I think it was some of the special agents or special men sent out from Washington anywhere from six months to a year and a half ago.

Q. But you, at that time volunteered this information to the special agents? A. Yes, sir.

1349 Q. You are not friendly with Snedden, are you?

A. Why, I cannot say that I am unfriendly with him.

Q. To be honest about it, aren't you and Snedden enemies?

A. Why should we be?

Q. I don't know the details of it why you should be.

A. I never did him any harm and he never did me any harm that I know of.

Q. Do you like Tom Snedden?

A. Oh, certainly there are men in the United States that I like better, I presume, but I have nothing against Mr. Snedden. He has dealt just as fair with me as any man that does business in my office.

Q. Now, you say you saw Mr. Gridley the other day?

A. Oh, yes, since your first meeting, and I think since your second.

Q. You went to him and asked him if it was he?

A. Yes, sir.

Q. You were sure when you went to him that it was not he?

A. Well, I was sure until I had the talk with Mr. Forrester.

Q. After that you were not sure about it, and that is the reason you spoke to Gridley?

A. I was never in doubt, but I was willing to ask the question, anyway.

(Witness excused.)

1350 Stipulation.

It is hereby stipulated by and between Mr. Burke and Mr. Birch, representing the complainants and Mr. Kelley and Mr. Evans, representing the defendant, that the proofs in this case be and they are hereby closed, with the exception that the Master may select from the public official records or the records of the state mining inspector the annual output of the Diamond Coal & Coke Company's mines from July 1st, 1898, when the present ownership took control of that company, to and including the last annual statement of such output, as a part of the original case of the complainant, subject to the objection of the defendant to each and all of said statistics on the ground that it is incompetent and also immaterial and irrelevant and refer to times that are outside of the period in controversy in this action, and refers to other lands and other property than that which is here in controversy. The objection on the ground of incompetency does not relate to the manner in which the evidence is produced upon the record. Plaintiff's Ex. No. 312.

Whereupon the testimony was closed.

1351 And I further certify that the foregoing testimony hereto annexed was reduced to writing in accordance with the stipulations and agreements of counsel aforesaid.

In Testimony whereof I have hereunto set my hand this 1st day of June A. D. 1908.

CLYDE M. WATTS,
Special Master in Chancery.

Filed Oct. 15, 1909. John D. Jordan, Clerk.

1351 **Plaintiffs Exhibit No. 1.**

Office of the U. S. Surveyor General
Cheyenne, Wyoming, January, 1908.

Copy of the Field Notes of the Public Survey of Townships 18, 19, and 20 N., R. 116 West.

Surveyed by
MORTIMER N. GRANT.

1352 **(18-116)**

Tp. 18 N. Rg. 116 W.
Surveyed by
Mortimer N. Grant.

Transcriber.—S. L. **O. S. L.**
T. E. G.

1353 **INDEX DIAGRAM**

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Meanders Page .....

1354 I Mortimer N. Grant having been appointed a deputy surveyor of the lands of the United States in Wyoming Territory do solemnly swear that I will well and faithfully and to the best of my skill and ability execute the duties confided to me pursuant to a contract with Silas Reed Surveyor General of public lands in Wyoming Territory bearing date the 6th day of July A. D. 1874, according to the laws of the United States and the instructions received from the said Surveyor General, said contract embracing the survey and establish the subdivisional lines of the following designated townships towit: Township 20 North, Range 115 West and Township 18, 19 & 20 North, Range 116 W. of the Sixth Principal Meridian in the Territory of Wyoming.

MORTIMER N. GRANT.

Subscribed and sworn to before me this 9th day of July A. D. 1874.

WILLIAM G. TOWN,
U. S. Comr. 3rd Jud. Dist. of Wyoming.

We, Thomas J. Biggin and Charles P. Gardner, do solemnly swear that we will faithfully execute the duties of Chain carrier, that we will level the chain upon uneven ground, and plumb the tally pins, whether by sticking or dropping the same that we will report the true distance to all notable objects and the true length of all lines that we assist in measuring to the best of our skill and ability.

THOMAS J. BIGGIN,
CHAS. P. GARDNER.

Sworn to and subscribed to this 9th day of July A. D. 1874.

MORTIMER N. GRANT,
Deputy Surveyor.

1355 I, Edward Charles Westbury, do solemnly sware that I will well and truly perform the duties of flagman according to instructions given me and to the best of my skill and ability.

EDWARD CHARLES WESTBURY.

Sworn to and subscribed to, this 9th day of July A. D. 1874.

MORTIMER N. GRANT,
Deputy Surveyor.

I, Samuel Hollis, do solemnly sware that I will well and truly perform the duties of axman according to instructions given me and to the best of my skill and ability.

SAML. HOLLIS.

Sworn to and subscribed to, this 9th day of July A. D. 1874.

MORTIMER N. GRANT,
Deputy Surveyor.

1356 Tp. 18 N., Rg. 116 West.

Chains.

To determine the proper adjustment of my compass for Subdividing this Tp. I commence at the cor to Tp's. 17 and 18 N., Rg. 115 and 116 West and run N. on a blank line along E. boundary of sec. 36. Va 17° 20′ E.

40.00—To a point 6 lk's. E. of ¼ sec. cor.

80.00—To a point 12 lk's. E. of cor. to sec's. 25 and 36. To retrace this line or run a parallel thereto my compass must be adjusted to a Va. of 17° 25′ E. I also retrace S. boundary of Tp. and find the length to be 79.50 chs. and the Va. to be 17° 25′ E. Survey commenced July 9th. Survey completed July 15th, '74.

North bet. sec's. 35 and 36. Va. 17° 25′ E.

40.00—A sand stone, 18x12x4, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 15x12x5 set 8 in. deep, marked with 1 notch on S. side and 1 notch on E. side for cor. to sec's. 25, 26, 35, 36. Land, rolling. Solid 3rd rate. Veg. grass, sage brush & scrub cedar.

East on a random line bet. secs. 25 and 36. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

63.50—Road, bears N. and S. from U. P. R. R. to soda springs.

79.20—Intersect E. boundary of Tp. 30 lk's. N. of cor. to sec's. 25 & 30, from which cor. I run N. 89° 47′ W. on a true line.

39.60—A sand stone, 15x15x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.20—The cor. to sec's. 25, 26, 35, 36. Land, rolling. Solid 3rd rate. Veg. grass, sage brush and cedars.

1357 Township 18 North, Range 116 West.

North bet. sec's 25 and 26. Va. 17° 25′ E.

40.00—A sand stone, 15x10x4, set 8 in. deep ,marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 18x12x4, set 12 in. deep, marked with 2 notches on S. side and 1 notch on E. side for cor. to

Chains.

sec's. 23, 24, 25, 26. Land, rolling. Solid, 3rd rate. Veg. grass sage brush and scrub cedars.

East on a random line, bet. sec's 24 and 25. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

45.30—Road, bears N. and S.

79.20—Intersect E. boundary of Tp. 50 lk's. N. of cor. to sec's. 24 & 25, from which cor. I run N. 89° 39′ W. on a true line.

39.60—A sand stone 16x10x5, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.20—The cor. to sec's. 23, 24, 25, 26. Land, rolling. Soil, 3rd rate. Veg. grass and sage brush.

North, bet. sec's. 23 and 24. Va. 17° 25′ E.

40.00—A sand stone, 16x12x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 16x12x3, set 10 in. deep, marked with 3 notches on S. side and 1 notch on E. side for cor .to sec's. 13, 14, 23, 24. Land, broken. Soil, 3rd rate. Veg. grass, sage brush and scrub cedars.

East on a random line, bet. sec's. 13 and 24. Va. 17° 25′ E.

4.10—Road, bears W. and SE.

40.00—Set a temp. ¼ sec. cor.

1358 Township 18 North, Range 116 West.

79.20—Intersect E. boundary of Tp. 16 lk's. N. of cor. to sec's. 13 and 24 from which cor. I run N. 89° 53′ W. on a true line.

39.60—A sand stone, 20x15x4, set 15 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.20—The cor. to sec's. 13, 14, 23, 24. Land, rolling & broken. 3d rate. Veg. grass, sage brush and scrub cedar.

North, bet. sec's. 13 and 14. Va. 17° 25′ E.

5.00—Road, bears NW. and SE.

40.00—A sand stone, 18x12x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 15x8x8, set 9 in. deep, marked with 4 notches on S. side and 1 notch on E. side for cor. to sec's. 11, 12, 13, 14. Land, rolling. Soil, poor. Veg. grass and sage brush.

Chains.

East on a random line, bet. sec's. 12 and 13. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

79.60—Intersect E. boundary of Tp. 10 lk's. N. of cor. to sec's. 12 & 13 from which cor. I run N. 89° 56′ W. on a true line.

39.80—A sand stone, 15x12x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.60—The cor. to sec's. 11, 12, 13, 14. Land, rolling, 3d rate. Veg. grass and sage brush.

North, bet. sec's. 11 and 12. Va. 17° 25′ E.

28.00—Dry gulch, drains NE.

40.00—A sand stone, 15x8x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

1359 Township 18 North, Range 116 West.

77.68—Little Muddy Creek 20 lk's. wide, 2 ft. deep, runs E.

80.00—A sand stone 20x8x3, set 14 in. deep, marked with 5 notches on S side and 1 notch on E. side for cor. to sec's. 1, 2, 11, 12. Land, rolling; Soil 3d rate. Veg. grass, grease wood and sage brush.

East on a random line, bet. sec's. 1 and 12. Va. 17° 25′ E.

2.00—Little Muddy Creek 40 lks. wide 15 in. deep, runs NE.

10.45—Same creek 30 lk's. wide, 20 in. deep, runs S.

28.50—Same creek 35 lk's. wide, 15 in. deep, runs NE.

32.10—Same creek 20 lk's. wide, 24 in. deep, runs SE.

36.00—Same creek 30 lk's. wide, 15 in. deep, runs N.

40.00—Set a temp. ¼ sec. cor.

58.63—Little Muddy Creek 18 lks. wide, 3 ft. deep, runs SE.

79.50—Intersect E. boundary of Tp. 20 lk's. N. of cor. to sec's. 1 & 12 from which cor. I run N. 89° 51′ W. on a true line.

39.75—A sand stone, 18x10x4, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.50—The cor. to sec's. 1, 2, 11, 12. Land, rolling. Soil 3d rate. Veg. grass, grease wood, sage brush and willows.

North on a random line, bet. sec's, 1 and 2. Va. 17° 25′ E.

10.50—Road, bears NE. and SW.

40.00—Set a temp. ¼ sec. cor.

80.56—Intersect N. boundary of Tp. 80 lks. E. of cor. to sec's. 1 and 2, from which cor. I run S 34′ E. on a true line.

Chains.

40.56—A sand stone, 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.56—The cor. to sec's. 1, 2, 11, 12. Land, broken; soil poor. Veg. grass and sage brush.

1360 Township 18 North, Range 116 West.

July 9th, 1874.

North, bet. sec's. 34 and 35. Va. 17° 25′ E.

40.00—A sand stone, 16x10x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 20x10x4, set 13 in. deep, marked with 1 notch on S. side and 2 notches on E. side for cor. to sec's. 26, 27, 34, 35. Land, rolling and broken; 3d rate. Veg. grass, sage brush, grease wood & scrub cedars.

East on a random line, bet. sec's. 26 and 35. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

79.20—Intersect N. and S. line 30 lk's. S. of cor. to sec's. 25, 26, 35, 36 from which cor. I run S. 89° 47′ W. on a true line.

39.60—A sand stone, 13x12x4, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.20—The cor. to sec's. 26, 27, 34, 35. Land, rolling; soil 3d rate. Veg. sage brush, grass and scrub cedars.

North, bet. sec's. 26 and 27. Va. 17° 25′ E.

40.00—A sand stone, 15x10x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 15x15x4, set 9 in. deep, marked with 2 notches on S side and 2 notches on E. side for cor. to sec's. 22, 23, 26, 27. Land rolling; soil, 3d rate. Veg. grass, sage brush and scrub cedar.

1361 Township 18 North, Range 116 West.

East on a random line, bet. sec's. 23 and 26. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

79.20—Intersect N. and S. line 70 lk's. S. of cor. to sec's. 23, 24, 25, 26, from which cor. I run S. 89° 30′ W. on a true line.

39.60—A sand stone, 18x10x3, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.20—The cor. to sec's. 22, 23, 26, 27. Land, rough; soil, 3d rate. Veg. grass, sage brush and scrub cedar.

Chains.

North bet. sec's. 22 and 23. Va. 17° 25′ E.

37.00—Dry gulch, drains NE.

40.00—A sand stone, 16x12x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

43.00— Dry gulch, drains to NW.

80.00—A sand stone, 18x10x3, set 12 in. deep, marked with 3 notches on S. side and 2 notches on E. side for cor. to sec's. 14, 15, 22, 23. Land, rolling; 3d rate. Veg. grass, sage brush and scrub cedars.

East on a random line, bet. sec's. 14 and 23. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

79.00—Intersect N. and S. line 15 lk's. S. of cor. to sec's. 13, 14, 23, 24 from which cor. I run S. 89° 53′ W. on a true line.

39.50—A sand stone, 12x10x4, set 7 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.00—The cor. to sec's. 14, 15, 22, 23. Land, rough; soil, poor. Veg. grass and sage brush.

1362 Township 18 North, Range 116 West.

North, bet. sec's. 14 and 15. Va. 17° 25′ E.

10.00—Dry gulch, drains NE.

40.00—A sand stone, 15x 8x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 18x12x5, set 12 in. deep, marked with 4 notches on S. side and 2 notches on E. side for cor. to sec's. 10, 11, 14, 15. Land, rolling; soil, 3d rate. Veg. grass, grease wood and sage brush.

East on a random line, bet. sec's 14 and 11. Va. 17° 25′ E.

36.00—Road, bears N. and S.

40.00—Set a temp. ¼ sec. cor.

56.00—Dry gulch, drains to NE.

79.00—Intersect N. and S. line 18 lk's. N. of cor. to sec's. 11, 12, 13, 14 from which cor. I run N. 89° 52′ W. on a true line.

39.50—A sand stone, 18x10x5, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.00—The cor. to sec's. 10, 11, 14, 15. Land, rolling; soil, 3d rate. Veg. grass, sage brush and grease wood.

Chains.

North bet. sec's. 10 and 11. Va. 17° 25′ E.
40.00—A sand stone, 15x10x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
62.00—Descend bluff, bears E. and W.
70.20—Foot of same.
75.10—Road from U. P. R. R. to soda springs, bears E. & W.
80.00—A sand stone, 16x10x3, set 10 in. deep, marked with 5 notches on S. side and 2 notches on E. side for cor. to sec's. 2, 3, 10, 11. Land, rolling. Soil 3d rate. Veg. grass, grease wood and sage brush.

1363 Township 18 North, Range 116 West.

East on a random line, bet. sec's. 2 and 11. Va. 17° 25′ E.
19.80—Little Muddy Ck. 20 lk's. wide, 18 in. deep, runs SE.
27.50—Same creek 30 lk's. wide, 15 in. deep, runs NE.
38.00—Same creek 50 lk's. wide, 12 in. deep, runs SE.
40.00—Set a temp. ¼ sec. cor.
66.60—Same creek 20 lk's. wide, 20 in. deep, runs NE.
76.80—Same creek 30 lk's. wide, 15 in. deep, runs SE.
79.10—Intersect N. and S. line 42 lk's. S. of cor. to sec's. 1, 2, 11, 12, from which cor. I run S. 89° 42′ W. on a true line.
39.55—A sand stone, 18x10x4, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.
79.10—The cor. to sec's. 2, 3, 10, 11. Land, rolling. Soil 3d rate. Veg. grass, grease wood, willow and sage brush,

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North on a random line, bet. sec's. 2 and 3. Va. 17° 25′ E.
16.90—Little Muddy Ck. 20 lk's. wide 24 in. deep, runs E.
28.00—Road, bears E. and W.
40.00—Set a temp. ¼ sec. cor.
80.95—Intersect N. boundary of Tp. 1.80 lks. E. of cor. to sec's. 2 & 3, from which cor. I run S. 1° 17′ E. on a true line.
40.95—A sand stone, 12x10x5, set 7 ins. deep, marked ¼ on W. side for ¼ sec. cor.
80.95—The cor. to sec's. 2, 3, 10, 11. Land, rolling. Soil, poor. Veg. grass, sage brush and grease wood.

July 10th, 1874.

North, bet. sec's. 33 and 34. Va. 17° 25′ E.
40.00—A sand stone, 14x12x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

Chains.

1364 Township 18 North, Range 116 West.

80.00—A sand stone, 16x10x4, set 10 in. deep, marked with 1 notch on S. side and 3 notches on E. side for cor. to sec's. 27, 28, 33 and 34. Land, rolling. Soil, 3d rate. Veg. grass, sage brush and cedars.

East on a random line, bet. sec's. 27 and 34. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

79.80—Intersect N. and S. line at the cor. to sec's. 26, 27, 34, 35, from which cor. I run West on a true line.

39.90—A sand stone, 14x10x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to sec's. 27, 28, 33, 34. Land, rough. Soil 3d rate. Veg. grass, sage brush, grease wood and scrub cedars.

North bet. sec's. 27 and 28. Va. 17° 25′ E.

6.50—Dry gulch, drains to NE.

40.00—A sand stone, 14x10x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 20x6x6, set 15 in. deep, marked with 2 notches on S. side and 3 notches on E. side for cor. to sec's. 21, 22, 27, 28. Land, rolling. Soil 3d rate. Veg. grass, grease wood and sage brush.

East on a random line, bet. sec's. 22 and 27. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.

65.50—Dry gulch, drains NE.

79.65—Intersect N. and S. line 50 lks. N. of cor. to sec's. 22, 23, 26, 27, from which cor. I run N. 89° 39′ W. on a true line.

1365 Township 18 North, Range 116 West.

39.82—A sand stone, 15x7x5, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.65—The cor. to sec's. 21, 22, 27, 28. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 21 and 22. Va. 17° 25′ E.

32.00—Dry gulch, drains to NE.

40.00—A sand stone, 16x14x3, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

Chains.

80.00—A sand stone, 16x14x4, set 10 in. deep, marked with 3 notches on S. side and 3 notches on E. side for cor. to sec's. 15, 16, 21, 22. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 15 and 22. Va. 17° 25′ E.

40.00—Set a temp. ¼ sec. cor.
68.00—Dry gulch, bears to NE.
79.00—Intersect N. and S. line at the cor. to sec's. 14, 15, 22, 23, from which cor. I run West on a true line.
39.50—A sand stone, 14x10x6, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.00—The cor. to sec's. 15, 16, 21, 22. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 15 and 16. Va. 17° 25′ E.

40.00—A sand stone, 14x10x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
66.00—Top of bluffs, bears NE. & SW.; descend.
72.00—Foot of same.

1366 Township 18 North, Range 116 West.

80.00—A sand stone, 15x10x4, set 10 in. deep, marked with 4 notches on S. side and 3 notches on E. side for cor. to sec's. 9, 10, 15, 16. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 10 and 15. Va. 17° 25′ E.

8.00—Begin to ascend steep bluff.
15.00—Top of same, bears NE. & SW.
40.00—Set a temp. ¼ sec. cor.
79.10—Intersect N. and S. line 30 lk's. S. of cor. to sec's. 10, 11, 14, 15, from which cor. I run S. 89° 47′ W. on a true line.
39.55—A sand stone, 18x12x3, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.10—The cor. to sec's. 9, 10, 15, 16. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 9 & 10. Va. 17° 25′ E.

40.00—A sand stone, 15x8x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone, 15x12x3, set 9 in. deep, marked with 5 notches on S. side and 3 notches on E. side for cor. to

Chains.

sec's. 3, 4, 9, 10. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 3 and 10. Va. 17° 25′ E.

38.50—Road, bears S. 80° E.

40.00—Set a temp. ¼ sec. cor.

79.10—Intersect N. and S. line at the cor. to sec's. 2, 3, 10, 11 from which cor. I run West on a true line.

1367 Township 18 North, Range 116 West.

39.55—A sand stone, 22x18x10, set 16 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.10—The cor. to sec's. 3, 4, 9, 10. Land, rolling. Soil 3d rate. Veg. grass, grease wood and sage brush.

North on a random line, bet. sec's. 3 and 4. Va. 17° 25′ E.

5.00—Road, bears S. 80° E.

12.75—Little Muddy Creek 30 lk's. wide, 10 in. deep, runs E.

13.80—Same creek, runs SE.

26.50—Same creek, runs SE.

40.00—Set a temp. ¼ sec. cor.

58.00—Road, bears E. and W.

81.50—Intersect N. boundary of Tp. 2.50 chs. E. of cor. to sec's. 3 & 4, from which cor. I run S. 1° 47′ E. on a true line.

41.50—A sand stone 15x11x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

81.50—The cor. to sec's. 3, 4, 9, 10. Land, broken. Soil poor. Veg. grass, grease wood and sage brush.

July 11th, 1874.

North bet. sec's. 32 and 33. Va. 17° 25′ E.

40.00—A sand stone, 14x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x12x3, set 10 in. deep, marked with 1 notch on S. side and 4 notches on E. side for cor. to sec's. 28, 29, 32, 33. Land, rolling. 3d rate. Veg. grass and sage br.

1368 Township 18 North, Range 116 West.

East on a random line, bet. sec's. 28 and 33. Va. 17° 35′ E.

40.00—Set a temp. ¼ sec. cor.

73.00—A dry gulch, drains to NE.

Chains.

79.65—Intersect N. and S. line 50 lk's. N. of cor. to sec's. 27, 28, 33, 34, from which cor. I run N. 89° 39′ W. on a true line.
39.82—A sand stone, 14x7x5, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.65—The cor. to sec's. 28, 29, 32, 33. Land, rolling. Soil, 3d rate. Veg. grass and sage brush, a few scrub cedars.

North, bet. sec's. 28 and 29. Va. 17° 25′ E.
40.00—A sand stone, 14x10x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
44.10—Dry gulch, drains NE.
80.00—A sand stone, 20x6x3, set 14 in. deep, marked with 2 notches on S. side and 4 notches on E. side for cor. to sec's. 20, 21, 28, 29. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 21 and 28. Va. 17° 25′ E.
36.00—Dry gulch, drains NE.
40.00—Set a temp. ¼ sec. cor.
80.00—Intersect N. and S. line 70 lk's. N. of cor. to sec's. 21, 22, 27, 28, from which cor. I run N. 89° 30′ W. on a true line.
40.00—A sand stone, 12x10x5, set 7 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.00—The cor. to sec's. 20, 21, 28, 29. Land, rolling. Soil 3d rate. Veg. grass, grease wood and sage brush.

1369 Township 18 North, Range 116 West.

North bet. sec's. 20 and 21. Va. 17° 25′ E.
9.00—Creek 2 lks. wide, 2 lk's. deep, runs E.
40.00—A sand stone, 20x10x3, set 14 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone, 18x14x3, set 12 in. deep, marked with 3 notches on S. side and 4 notches on E. side for cor. to sec's. 16, 17, 20, 21. Land, rolling. Soil, 3d rate. Veg. grass, grease wood and sage brush.

East on a random line, bet. sec's. 16 and 21. Va. 17° 25′ E.
40.00—Set a temp. ¼ sec. cor.

Chains.

80.00—Intersect N. and S. line 1.00 ch. N. of cor. to sec's. 15, 16, 21, 22, from which cor. I run N. 89° 17′ W. on a true line.

40.00—A sand stone, 20x6x5, set 14 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.00—The cor. to sec's. 16, 17, 20, 21. Land, rolling. Soil, 3d rate. Veg. grass and sage brush.

North bet. sec's. 16 and 17. Va. 17° 25′ E.

40.00—A sand stone, 16x12x3, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 14x8x3, set 8 in. deep, marked with 4 notches on S. side and 4 notches on E. side for cor. to sec's. 8, 9, 16, 17. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 9 and 16. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.

1370 Township 18 North, Range 116 West.

79.80—Intersect N. and S. line 75 lk's. N. of cor. to sec's. 9, 10, 15, 16, from which cor. I run N. 89° 28′ W. on a true line.

39.90—A sand stone, 16x8x3, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to sec's. 8, 9, 16, 17. Land, rolling. Soil, 3d rate. Veg. grass and sage brush.

North bet. sec's. 8 and 9. Va. 17° 20′ E.

40.00—A sand stone, 16x8x3, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 16x10x4, set 10 in. deep, marked with 5 notches on S. side and 4 notches on E. side for cor. to sec's. 4, 5, 8, 9. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 4 and 9. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.

79.90—Intersect N. and S. line 100 lk's. N. of cor. to sec's. 3, 4, 9, 10, from which cor. I run N. 89° 17′ W. on a true line.

39.95—A sand stone 15x12x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

Chains.

79.90—The cor. to sec's. 4, 5, 8, 9. Land, rolling. Soil poor. Veg. grass and sage brush.

North on a random line, bet. sec's. 4 and 5. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.
52.00—Road, bears NW.
60.90—Little Muddy Ck. 30 lk's. wide, 12 in. deep, runs E.

1371 Township 18 North, Range 116 West.

69.40—Road, bears NW. and SE.
81.50—Intersect N. boundary of Tp. 3.00 lk's. E. of cor. to sec's. 4 & 5, from which cor. I run S. 2° 09′ E. on a true line.
41.50—A sand stone 16x10x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.
81.50—The cor. to sec's. 4, 5, 9, 8. Land, rolling. Soil 3d rate. Veg. grass, sage brush and grease wood.

July 13th, 1874.

North bet. sec's. 31 and 32. Va. 17° 20′ E.

16.00—Dry gulch, drains NE.
40.00—A sand stone, 16x8x3, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.
67.00—Dry gulch, drains NE.
80.00—A sand stone, 16x8x5, set 10 in. deep, marked with 1 notch on S. side and 5 notches on E. side for cor. to sec's. 29, 30, 31, 32. Land, broken. 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 29 and 32. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.
40.50—Dry gulch, drains NE.
52.00—Dry gulch, drains N.
80.00—Intersect N. and S. lines 70 lk's. S. of cor. to sec's. 28, 29, 32, 33, from which cor. I run S. 89° 30′ W. on a true line.
40.00—A sand stone, 14x12x3, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.00—The cor. to sec's. 29, 30, 31, 32. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

1372 Township 18 North, Range 116 West.

West on a random line, bet. sec's. 30 and 31. Va. 17° 20′ E.

Chains.

40.00—Set a temp. ¼ sec. cor.
80.15—Intersect W. boundary of Tp. 50 lk's. S .of cor. to sec's. 30 and 31, from which cor. I run S. 89° 39′ E. on a true line.
40.15—A sand stone 16x7x6, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.15—The cor. to sec's. 29, 30, 31, 32. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 29 and 30. Va. 17° 20′ E.
40.00—A sand stone, 15x12x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 14x10x6, set 8 in. deep, marked with 2 notches on S. side and 5 notches on E. side for cor. to sec's. 19, 20, 29, 30. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 20 and 29. Va. 17° 20′ E.
40.00—Set a temp. ¼ sec. cor.
80.18—Intersect N. and S. line 75 lk's. S. of cor. to sec's. 20, 21, 28, 29, from which cor. I run S. 89° 27′ W. on a true line.
40.09—A sand stone, 16x10x3, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.18—The cor. to sec's. 19, 20, 29, 30. Land, broken. Soil 3d rate. Veg. grass and sage brush.

West on a random line, bet. sec's. 19 and 30. Va. 17° 20′ E.
3.50—Dry gulch, drains NE.

1373 Township 18 North, Range 116 West.

40.00—Set a temp. ¼ sec. cor.
73.00—A vein of coal, dips to NW.
80.50—Intersect W. boundary of Tp. 16 lk's. S. of cor, to sec's. 19 & 30, from which cor. I run S. 89° 53′ E. on a true line.
40.50—A sand stone 16x10x4, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.50—The cor. to sec's. 19, 20, 29, 30. Land, broken. Soil poor. Veg. grass & sage brush.

North bet. sec's. 19 and 20. Va. 17° 20′ E.
1.40—Dry gulch, drains to E.
11.00—Dry gulch, drains to SE.

Chains.

40.00—A sand stone, 12x10x10, set 7 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 16x10x3, set 10 in. deep, marked with 3 notches on S. side and 5 notches on E. side for cor. to sec's. 17, 18, 19, 20. Land, broken. Soil poor. Veg. grass and sage brush.

East on a random line, bet. sec's 17 and 20. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.

80.56—Intersect N. and S. line 80 lk's. S. of cor. to sec's. 16, 17, 20, 21, from which cor. I run S. 89° 26′ W. on a true line.

40.28—A sand stone 15x10x3, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.56—The cor. to sec's. 17, 18, 19, 20. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

1374 Township 18 North, Range 116 West.

West on a random line, bet. sec's. 18 and 19. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.

80.92—Intersect W. boundary of Tp. 56 lk's S. of cor, to sec's. 18 & 19 from which cor. I run S. 89° 36′ E. on a true line.

40.92—A sand stone, 20x8x4, set 14 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.92—The cor. to sec's. 17, 18, 19, 20. Land, rolling. Soil poor. Veg. grass and sage brush.

North bet. sec's. 17 and 18. Va. 17° 20′ E.

40.00—A sand stone 14x12x6, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone, 26x5x4, set 16 in. deep, marked with 4 notches on S. side and 5 notches on E. side for cor. to sec's. 7, 8, 17, 18. Land, rolling. Soil, 3d rate. Veg. grass & sage brush.

July 14th, 1874.

East on a random line, bet. sec's. 8 and 17. Va. 17° 20′ E.

40.00—Set a temp. ¼ sec. cor.

80.30—Intersect N. and S. line 60 lk's. S. of cor. to sec's. 9, 8, 16, 17, from which cor. I run S. 89° 34′ W. on a true line.

Chains.

40.15—A sand stone, 12x10x8, set 7 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.30—The cor. to sec's. 7, 8, 17, 18. Land, broken. Soil poor. Veg. grass and sage brush.

West on a random line, bet. sec's. 7 and 18. Va. 17° 20′ E.
10.30—Dry gulch, drains to NE.

1375 Township 18 North, Range 116 West.

40.00—Set a temp. ¼ sec. cor.
82.00—Intersect W. boundary of Tp. at the cor. to sec's. 7 and 18, from which cor. I run East on a true line.
42.00—A sand stone 12x10x8, set 7 in. deep, marked ¼ on N. side for ¼ sec. cor.
82.00—The cor. to sec's. 7, 8, 17, 18. Land rolling. Soil poor. Veg. grass & sage brush.

North bet. sec's. 7 and 8. Va. 17° 20′ E.
29.50—Dry gulch, drains NE.
40.00—A sand stone 15x6x5, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.
52.00—Dry gulch, drains NW.
62.00—Dry gulch, drains N. 5° E.
80.00—A sand stone, 16x10x3, set 10 in. deep, marked with 5 notches on S. side and 5 notches on E. side for cor. to sec's. 5, 6, 7, 8. Land, broken. Soil poor. Veg. grass & sage brush.

East on a random line bet. sec's, 5 and 8. Va. 17° 20′ E.
8.00—Dry gulch, drains SE.
40.00—Set a temp. ¼ sec. cor.
80.38—Intersect N. and S. line 50 lk's. S. of cor. to sec's. 4, 5, 8, 9, from which cor. I run S. 89° 39′ W. on a true line.
40.19—A sand stone 15x9x6, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.38—The cor. to sec's. 5, 6, 7, 8. Land, broken. Soil poor. Veg. grass and sage brush.

1376 Township 18 North, Range 116 West.

West on a random line, bet. sec's. 6 and 7. Va. 17° 20′ E.
40.00—Set a temp. ¼ sec. cor.

Chains.

82.50—Intersect W. boundary of Tp. at the cor. to sec's. 6 and 7, from which cor. I run East on a true line.
42.50—A sand stone 15x15x3, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
82.50—The cor. to sec's. 5, 6, 7, 8. Land, rolling. Soil poor. Veg. grass and sage brush.

North on a random line bet. secs. 5 and 6. Va. 17° 20′ E.
40.00—Set a temp. ¼ sec. cor.
81.48—Intersect N. boundary of Tp. 3.15 chs. E. of cor. to sec's. 5 & 6, from which cor. I run S. 2° 15′ E. on a true line.
41.48—A sand stone 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
81.48—The cor. to sec's. 5, 6, 7, 8. Land, rough. Soil poor. Veg. grass, sage brush and grease wood.

July 15th, 1874.

1377 Township 18 North, Range 116 West.

General Description.

The land in this Tp. is of very poor quality, far below the common average.

The little Muddy Creek runs along the line bet. sec's. 1 and 12, 2 and 11, and through sec's. 3, 4 and 5. The water is a little alkaline and very muddy most of the time. There are some cedars in sec's. 22, 24, 25, 26, 27, 34, 35, 36, 7, 18, 19 and 30, but very scattering.

I find coal on sec's. 5, 6, 7, 8, 17, 18, 19, 20, 29, 30 and 31 and return those sec's. as coal lands.

There is very little grazing in the Tp., it being mostly covered with sage brush.

The Rd. from Ft. Bridger to the Soda springs, runs through this Tp.

List of Names.

A list of names of the individuals employed to assist in running, measuring & marking the lines and corners described in the foregoing field notes of the survey of the sub-

Meridian in the Territory of Wyoming showing the respective capacities in which they acted.

Thomas J. Biggin,	Chainman.
Charles P. Gardner,	Chainman.
E. C. Westbury,	Flagman.
Samuel Hollis,	Axeman.

1378 Surveyor General's Office.

Cheyenne, Wyoming, Sept. 30th, 1874.

The foregoing field notes of the survey of the subdivisional lines of Tp. 18 N., Rg. 116 West of the 6th Principal Meridian in the Territory of Wyoming, executed by Mortimer N. Grant under his contract of the 6th day of July, 1874, in the month of July, 1874, having been critically examined, the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

SILAS REED,
U. S. Surveyor General.

1379 (19-116)

Tp. 19 N. Rg. 116 W.
Surveyed by
Mortimer N. Grant.

1380 List of Assistants.

Thomas Biggin,
C. P. Gardner,
E. C. Westbury,
Saml. Hollis.

1381

INDEX DIAGRAM.

Township 19 North, Range 116 West

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Meanders Page .....

Chains.

1382 **Tp. 19 North, Range 116 W.**

To obtain the proper adjustment of my compass for subdividing this Tp.

I commence at the cor. to Tp's. 18 and 19 N. Rg. 116 West and run N. on a blank line along E. boundary of sec. 36. Va. 17° 25.

Chains.

40.00—A point 6 lk's. E. of ¼ sec. cor.
80.00—A point 12 lk's. E. of cor. to sec's. 25, 30, 31, 36.

To retrace this line or run a parallel thereto my compass must be adjusted to a variation of 17° 30′ E.

Survey commenced July 16th, '74.

Survey Completed, July 23d, 1874.

North bet. sec's. 35 and 36. Va. 17° 30′ E.
40.00—A sand stone, 16x12x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone, 16x12x5, set 8 in. deep, marked with 1 notch on S. side and 1 notch on E. side for cor. to sec's. 25, 26, 35, 36. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 25 and 36. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.
79.90—Intersect E. boundary of Tp. 40 lk's. S. of cor. to sec's. 25 & 36, from which cor. I run S. 89° 43′ W. on a true line.
39.95—A sand stone 20x10x3, set 14 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.90—The cor. to sec's. 25, 26, 35, 36. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1383 Township 19 North, Range 116 West.

North bet. sec's. 25 and 26. Va. 17° 30′ E.
40.00—A sand stone 15x12x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 15x13x4, set 8 in. deep, marked with 2 notches on S. side and 1 notch on E. side for cor. to sec's. 23, 24, 25, 26. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 24 and 25. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.
79.90—Intersect N. and S. line 70 lk's. S. of cor. to sec's. 24 and 25, from which cor. I run S. 89° 30′ W. on a true line.
39.95—A sand stone 16x15x4, set 8 in. deep, marked ¼ on N. side, for ¼ sec. cor.

Chains.

79.90—The cor. to sec's. 23, 24, 25, 26. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 23 and 24. Va. 17° 30′ E.

40.00—A sand stone 12x10x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 14x10x4, set 7 in. deep, marked with 3 notches on S. side and 1 notch on E. side for cor. to sec's. 13, 14, 23, 24. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 13 and 24. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

80.00—Intersect E. boundary of Tp. 68 lk's. S. of cor. to sec's. 13 & 24, from which cor. I run S. 89° 31′ W. on a true line.

1384 Township 19 North, Range 116 West.

40.00—A sand stone, 16x10x5, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.00—The cor. to sec's. 13, 14, 23, 24. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 13 and 14. Va. 17° 30′ E.

40.00—A sand stone 18x12x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 15x10x4, set 8 in. deep, marked with 4 notches on S. side and 1 notch on E. side for cor. to sec's. 11, 12, 13, 14. Land, rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 12 and 13. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.80—Intersect E. boundary of Tp. 80 lk's. S. of cor. to sec's. 12 & 13, from which cor. I run S. 89° 26′ W. on a true line.

39.90—A sand stone 16x10x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to se'c. 11, 12, 13, 14. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 11 and 12. Va. 17° 30′ E.

40.00—A sand stone 14x11x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

Chains.

80.00—A sand stone 15x8x7, set 8 in. deep, marked with 5 notches on S. side and 1 notch on E. side for cor. to sec's. 1, 2, 11, 12. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1385 Township 19 North, Range 116 West.

East on a random line, bet. sec's. 1 and 12. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.80—Intersect E. boundary of Tp. 76 lk's. S. of cor. to sec's. 1 and 12, from which cor. I run S. 89° 27′ W. on a true line.

39.90—A sand stone 18x10x3, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to sec's. 1, 2, 11, 12. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North on a random line, bet. sec's. 1 and 2. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

81.10—Intersect N. boundary of Tp. 10 lk's. E. of cor. to sec's. 1, and 2, from which cor. I run S. 4′ E. on a true line.

41.10—A sand stone 14x14x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

81.10—The cor. to sec's. 1, 2, 11, 12. Land rolling. Veg. grass and sage brush.

July 16th, 1874.

North bet. sec's. 34 and 35. Va. 17° 30′ E.

40.00—A sand stone 14x14x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

45.00—Ascend steep bluff.

49.50—Top of same, bears E. and W.

80.00—A sand stone 16x12x3, set 8 in. deep, marked with 1 notch on S. side and 2 notches on E. side for cor. to sec's. 26, 27, 34, 35. Land rolling. 3d rate. Veg. sage brush and grass.

1386 Township 19 North, Range 116 W.

East on a random line, bet. sec's. 26 and 35. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

Chains.

80.19—Intersect N. and S. line 10 lk's. N. of cor. to sec's. 25, 26, 35, 36, from which cor. I run N. 89° 56′ W. on a true line.
40.09—A sand stone 14x10x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.19—The cor. to secs. 26, 27, 34, 35. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 26 and 27. Va. 17° 30′ E.
5.20—Descend bluffs, bears E. & SW.
10.00—Foot of same.
40.00—A sand stone 16x12x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
64.00—Dry gulch, drains SW.
80.00—A sand stone 16x10x5, set 8 in. deep, marked with 2 notches on S. side and 2 notches on E. side for cor. to sec's. 22, 23, 26, 27. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line, bet. sec's. 23 and 26. Va. 17° 30′ E.
10.00—Dry gulch, bears SW.
38.00—Ascend steep bluff.
40.00—Set a temp. ¼ sec. cor.
43.50—Top of bluff, bears NE. and S.
80.30—Intersect N. and S. line 50 lk's. S. of cor. to sec's. 25, 24, 23, 26, from which cor. I run S. 89° 39′ W. on a true line.
40.15—A sand stone 18x8x5, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

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80.30—The cor. to sec's. 22, 23, 26, 27. Land rough. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 22 and 23. Va. 17° 30′ E.
40.00—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 12x12x6, set 6 in. deep, marked with 3 notches on S. side and 2 notches on E. side for cor. to sec's. 14, 15, 22, 23. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 14 and 23. Va. 17° 30′ E.

Chains.

6.00—Dry gulch, drains S.
10.00—Ascend hill, bears N. and S.
30.00—Top of same.
35.00—Descend same.
40.00—Set a temp. ¼ sec. cor.
50.00—Foot of hill.
80.40—Intersect N. and S. line 80 lk's. S. of cor. to sec's. 13, 14, 23, 24, from which cor. I run S. 89° 26′ W. on a true line.
40.20—A sand stone 15x10x4, set 8 in. deep, marked ¼ on N. rule for ¼ sec. cor.
80.40—The cor. to sec's. 14, 15, 22, 23, Land, rough. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 14 and 15. Va. 17° 30′ E.
6.50—Dry gulch, drains to SE.
40.00—A sand stone 12x10x5, set 6 in. deep, marked ¼ on W. side for ¼ sec. cor.

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62.00—Dry gulch, drains to SW.
80.00—A sand stone 18x12x4, set 12 in. deep, marked with 4 notches on S. side and 2 notches on E. side for cor. to sec's. 10, 11, 14, 15. Land rolling. Soil, 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 11 and 14. Va. 17° 30′ E.
7.50—Dry gulch, drains SW.
40.00—Set a temp. ¼ sec. cor.
80.00—Intersect N. and S. line 80 lk's. S. of cor. to sec's. 11, 12, 13, 14, from which cor. I run S. 89° 26′ W .on a true line.
40.00—A sand stone 15x12x3, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.00—The cor. to sec's. 10, 11, 14, 15. Land rough. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 10 and 11. Va. 17° 30′ E.
14.00—Dry gulch, drains to SE.
40.00—A sand stone 14x12x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 14x12x3, set 10 in. deep, marked with 5 notches on S. side and 2 notches on E. side for cor. to sec's. 2, 3, 10, 11. Land rolling. Soil 3d rate. Veg. grass and sage brush.

Chains.

East on a random line bet. sec's. 2 and 11. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

59.00—Dry gulch, drains N.

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80.17—Intersect N. and S. line 40 lk's. S. of cor. to sec's. 1, 2, 11, 12, from which cor. I run S. 89° 43′ W. on a true line.

40.08—A sand stone 14x12x3, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.17—The cor. to sec's. 2, 3, 10, 11. Land, rough. Soil 3d rate. Veg. grass & sage brush.

North on a random line bet. sec's. 2 and 3. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

82.00—Intersect N. boundary of Tp. 60 lk's. E. of cor. to sec's. 2 and 3 from which cor. I run S. 26′ E. on a true line.

42.00—A sand stone 18x7x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

82.00—The cor. to sec's. 2, 3, 10, 11. Land broken. Soil 3d rate. Veg. grass and sage brush.

July 17th, 1874.

North bet. sec's. 33 and 34. Va. 17° 30′ E.

30.00—Dry gulch, drains to SW.

40.00—A sand stone 16x10x4, set 8 in deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 15x15x3, set 9 in. deep, marked with 1 notch on S. side and 3 notches on E. side for cor. to sec's. 27, 28, 33, 34. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 27 and 34. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

49.00—Dry gulch, drains to SW.

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70.00—Ascend steep bluff, bears N. & S.

74.37—Top of same.

79.70—Intersect N. and S. line 50 lk's. N. of cor. to sec's. 26, 27, 34, 35, from which cor. I run N. 89° 39′ W. on a true line.

Chains.

39.85—A sand stone 14x12x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.70—The cor. to sec's. 27, 28, 33, 34. Land rough. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 27 and 28. Va. 17° 30′ E.
40.00—A sand stone 15x12x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 18x11x4, set 12 in. deep, marked with 2 notches on S. side and 3 notches on E. side for cor. to sec's. 21, 22, 27, 28. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 22 and 27. Va. 17° 30′ E.
34.55—Dry gulch, drains SE.
40.00—Set a temp. ¼ sec. cor.
79.50—Intersect N. and S. line 90 lk's. N. of cor. to sec's. 22, 23, 26, 27, from which cor. I run N. 89° 21′ W. on a true line.
39.75—A sand stone 18x8x5, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.50—The cor. to sec's. 21, 22, 27, 28. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1391 Township 19 North, Range 116 West.

North bet. sec's. 21 and 22. Va. 17° 30′ E.
40.00—A sand stone 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
57.00—Dry gulch, drains to E.
77.00—Dry gulch, drains to SW.
80.00—A sand stone 18x10x3, set 12 in. deep, marked with 3 notches on S. side and 3 notches on E. side for cor. to sec's. 15, 16, 21, 22. Land rough. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 15 and 22. Va. 17° 30′ E.
4.50—Dry gulch, drains S.
40.00—Set a temp. ¼ sec. cor.
80.00—Intersect N. and S. line 60 lk's. N. of cor. to sec's. 14, 15, 22, 23, from which cor. I run N. 89° 34′ W. on a true line.
40.00—A sand stone 18x8x5, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

Chains.

80.00—The cor. to sec's. 15, 16, 21, 22. Land broken. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 15 and 16. Va. 17° 30′ E.

6.00—Dry gulch, drains SE.

40.00—A sand stone 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x12x3, set 8 in. deep, marked with 4 notches on S. side and 3 notches on E. side for cor. to sec's. 9, 10, 15, 16. Land broken. Soil 3d rate. Veg. grass and sage brush.

1392 Township 19 North, Range 116 West.

East on a random line bet. sec's. 10 and 15. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.80—Intersect N. and S. line 50 lk's. N. of cor. to sec's. 10, 11, 14, 15, from which cor. I run N. 89° 39′ W. on a true line.

39.90—A sand stone 18x10x3, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to sec's. 9, 10, 15, 16. Land rolling. 3d rate. Veg. grass and sage brush.

North bet. sec's. 9 and 10. Va 17° 30′ E.

40.00—A sand stone 18x10x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 18x8x3, set 12 in. deep, marked with 5 notches on S. side and 3 notches on E. side for cor. to sec's. 3, 4, 10, 9. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 3 and 10. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.55—Intersect N. and S. line 50 lk's. N. of cor. to sec's. 2, 3, 10, 11, from which cor. I run N. 89° 39′ W. on a true line.

39.77—A sand stone 20x12x3, set 14 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.55—The cor. to sec's. 3, 4, 9, 10. Land rolling. Soil 3d rtae. Veg. grass and sage brush.

Chains.

North on a random line bet. sec's. 3 and 4. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.

1393 Township 19 North, Range 116 West.

81.50—Intersect N. boundary of Tp. 100 lk's. E. of cor. to sec's. 3 & 4, from which cor. I run S. 43′ on a true line.
41.50—A sand stone 14x2x6, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
81.50—The cor. to sec's. 3, 4, 9, 10. Land rolling. Soil 3d rate. Veg. grass and sage brush.

July 18th, 1874.

North Bet. sec's. 32 and 33. Va. 17° 30′ E.
40.00—A sand stone 15x8x5, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 15x10x5, set 9 in. deep, marked with 1 notch on S. side and 4 notches on E. side for cor. to sec's. 28, 29, 32, 33. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East bet. sec's. 28 and 33, on a random line. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.
80.40—Intersect N. and S. line 25 lk's. N. of cor. to sec's. 27, 28, 33, 34, from which cor. I run N. 89° 49′ W. on a true line.
40.20—A sand stone 17x10x3, set 11 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.40—The cor. of sec's. 28, 29, 32, 33. Land broken. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 28 and 29. Va. 17° 30′ E.
40.00—A sand stone 16x12x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

1394 Township 19 North, Range 116 West.

80.00—A sand stone 18x10x4, set 12 in. deep, marked with 2 notches on S. side and 4 notches on E. side for cor. to sec's. 20, 21, 28, 29. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 21 and 28. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.

Chains.

80.40—Intersect N. and S. line 26 lk's. N. of cor. to sec's. 21, 22, 27, 28, from which cor. I run N. 89° 49′ W. on a true line.
40.20—A sand stone 18x12x3, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.40—The cor. to sec's. 20, 21, 28, 29. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 20 and 21. Va. 17° 30′ E.
33.80—Dry gulch, drains SW.
40.00—A sand stone 14x12x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 20x10x8, set 14 in. deep, marked with 3 notches on S. side and 4 notches on E. side for cor. to sec's. 16, 17, 20, 21. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's. 16 and 21. Va. 17° 30′ E.
21.00—Dry gulch, drains S. 20° W.
40.00—Set a temp. ¼ sec. cor.
80.05—Intersect N. and S. line 30 lk's. N. of cor. to sec's. 15, 16, 21, 22 from which cor. I run N. 89° 47′ W. on a true line.

1395 Township 19 North, Range 116 West.

40.02—A sand stone 18x12x4, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.05—The cor. to sec's. 16, 17, 20, 21. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 16 and 17. Va. 17° 30′ E.

Ascend rough broken ridge numerous out croppings of coal on line.

20.00—Top of ridge, bears NE. and SW.
40.00—A sand stone 18x10x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 16x10x3, set 8 in. deep, marked with 4 notches on S. side and 4 notches on E. side for cor. to sec's. 8, 9, 16, 17. Land broken. 3d rate soil. Veg. grass and sage brush.

East on a random line bet. sec's. 9 and 16. Va. 17° 30′ E.

Chains.

Over rough broken sand stone ridges.
40.00—Set a temp. ¼ sec. cor.
71.20—Dry gulch, drains SW.
80.70—Intersect N. and S. line 45 lk's. N. of cor. to sec's. 9, 10, 15, 16, from which cor. I run N. 89° 41′ W. on a true line.
40.35—A sand stone 14x12x3, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.70—The cor. to sec's. 8, 9, 16, 17. Land rough. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's. 8 and 9. Va. 17° 30′ E.
40.00—A sand stone 16x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

1396 Township 19 North, Range 116 West.

80.00—A sand stone 17x10x3, set 11 in. deep, marked with 5 notches on S. side and 4 notches on E. side for cor. to sec's. 4, 5, 8, 9. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 4 and 9. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.
80.20—Intersect N. and S. line 40 lk's N. of cor. to sec's 3, 4, 9, 10, from which cor. I run N. 89° 43′ W. on a true line.
40.10—A sand stone 16x14x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.20—The cor. to sec's 4, 5, 8, 9. Land rolling. 3d rate. Veg. grass and sage brush.

North on a random line bet. sec's 4 and 5. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.
80.70—Intersect N. boundary of Tp. 80 links E. of cor. to sec's 4 & 5 from which cor. I run S. 34′ E. on a true line.
40.70—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.70—The cor. to sec's 4, 5, 8, 9. Land rough. Soil 3d rate. Veg. grass and sage brush.

July 20th, 1874.

North bet. sec's 31 and 32. Va. 17° 30′ E.
1.30—Little Muddy creek, runs SE. 30 lk's wide, 12 in. deep.
40.00—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

Chains.

1397 Township 19 North, Range 116 West.

80.00—A sand stone 15x12x4, set 8 in. deep, marked with 1 notch on S. side and 5 notches on E. side for cor. to sec's 29, 30, 31, 32. Land broken. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 29 and 32. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.
69.00—Dry gulch, drains S.
80.60—Intersect N. and S. line at the cor. to sec's 28, 29, 32, 33 from which cor. I run West on a true line.
40.30—A sand stone 14x10x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.60—The cor. to sec's 29, 30, 31, 32. Land rough and broken unfit for cultivation. Veg. grass and sage brush.

West on a random line bet. sec's 30 and 31. Va. 17° 30′ E.

6.00—Dry gulch, drains S. and road, bears W. & SE.
8.00—Leave road.
9.00—Ascend steep bluff.
15.00—Top of same, bears N. 20° E.
25.00—Foot of same.
29.40—Creek, 5 links wide, 5 in. deep runs S.
40.00—Set temp. ¼ sec. cor.
79.00—Intersect W. boundary of Tp. 40 lk's S. of cor. to sec's 30 & 31 from which cor. I run. S. 89° 43′ E. on a true line.
39.00—A sand stone 14x10x4, set 7 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.00—The cor. to sec's 29, 30, 31, 32. Land rough.

1398 Township 19 North, Range 116 West.

Soil poor. Veg. grass and sage brush.

North bet. sec's 29 & 30. Va. 17° 30′ E.

28.00—Dry gulch, drains S. 10° W.
30.00—Ascend steep bluff.
40.00—A sand stone 14x8x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
50.00—Top of bluff, bears N. 20° E. Thence descend same.
80.00—A sand stone 15x7x7, set 9 in, deep, marked with 2 notches on S. side and 5 notches on E. side for cor. to

Chains.

sec's 19, 20, 29, 30. Land rough. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 20 and 29. Va. 17° 30′ E.

10.90—Top of bluff, bears N. 10° E. Descend same.
15.00—Foot of same.
28.50—Dry gulch, drains S.
40.60—Set a temp. ¼ sec. cor.
67.80—Dry gulch, drains S.
80.60—Intersect N. and S. line 10 lk's N. of cor. to sec's 20, 21, 28, 29 from which cor. I run N. 89° 56′ W. on a true line.
40.30—A sand stone 15x10x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.60—The cor. to sec's 19, 20, 29, 30. Land rough. Soil poor. Veg. grass and sage brush.

1399 Township 19 North, Range 116 West.

West on a random line bet. sec's 19 and 30. Va. 17° 30′ E.

12.00—Foot of steep bluff.
14.00—Creek, 2 in. deep, 5 lk's wide, runs S.
40.00—Set a temp. ¼ sec. cor.
81.00—Intersect W. boundary of Tp. 50 lk's S. of cor. to sec's 19 & 30 from which cor. I run S. 89° 39′ E. on a true line.
41.00—A sand stone 14x8x6, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
81.00—The cor. to sec's 19, 20, 29, 30. Land rough & broken. Soil poor. Veg. grass & sage brush.

North bet. sec's 19 and 20. Va. 17° 30′ E.

40.00—A sand stone 16x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
50.00—Top of steep hill.
80.00—A sand stone 16x10x4, set 8 in. deep, marked with 3 notches on S. side and 5 notches on E. side for cor. to sec's 17, 18, 19, 20. Land rough & broken. Soil poor. Veg. grass & sage brush.

East on a random line bet. sec's 17 and 20. Va. 17° 30′ E.

5.00—Ascending steep bluff.
36.00—Top of same, bears N. 10° E.

Chains.

40.00—Set a temp. ¼ sec. cor.
45.00—Foot of Bluffs.
81.00—Intersect N. and S. line 70 lk's S. of cor. to sec's 16, 17, 20, 21 from which cor. I run S. 89° 30′ W. on a true line.
40.50—A sand stone 18x10x8, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

1400 Township 19 North, Range 116 West.

81.00—The cor. to sec's 17, 18, 19, 20. Land very rough. Soil poor. Veg. grass and sage brush.

West on a random line bet. sec's 18 and 19. Va. 17° 30′ E.
8.40—A creek, 5 lk's wide, 5 in. deep, runs S.
40.00—Set a temp. ¼ sec. cor.
80.30—Intersect W. boundary of Tp. 60 lk's S. of cor. to sec's 18 & 19 from which cor. I run S. 89° 34′ E. on a true line.
40.30—A sand stone 12x10x4, set 6 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.30—The cor. to sec's 17, 18, 19, 20. Land rolling. Soil 3d rate. Veg. grass and sage brush.

July 22d, 1874.

North bet. sec's 17 and 18. Va. 17° 30′ E.
40.00—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—Sand stone 15x10x4, set 8 in. deep, marked with 4 notches on S. side and 5 notches on E. side for cor. to sec's 7, 8, 17, 18. Land rolling. 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 8 and 17. Va. 17° 30′ E.
25.00—Ascending steep bluff.
40.00—Set a temp. ¼ sec. cor.
58.50—Top of bluffs, bears N. 20° E.
62.50—Foot of same.
80.80—Intersect N. and S. line 60 lk's S. of cor. to sec's 8, 9, 16, 17 from which cor. I run S. 89° 34′ W. on a true line.

1401 Township 19 North, Range 116 West.

40.40—A sand stone 18x12x4, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

Chains.

80.80—The cor. to sec's 7, 8, 17, 18. Land broken. Soil poor. Veg. grass and sage brush.

West on a random line bet. sec's 7 and 18. Va. 17° 30′ E.

6.50—Creek, 5 lk's wide, 5 in. deep, runs S.
40.00—Set a temp. ¼ sec. cor.
80.50—Intersect W. boundary of Tp. 90 lk's S. of cor. to sec's 7 & 18 from which cor. I run S. 89° 21′ E. on a true line.
40.50—A sand stone 16x10x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.50—The cor. to sec's 7, 8, 17, 18. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 7 and 8. Va. 17° 30′ E.

10.00—Creek, runs S. 20° W.
40.00—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 15x10x4, set 8 in. deep, marked with 5 notches on S. side and 5 notches on E. side for cor. to sec's 5, 6, 7, 8. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. secs. 5 and 8. Va. 17° 30′ E.

3.80—Creek, runs S.
20.00—Ascend bluff.
40.00—Set a temp. ¼ sec. cor.
60.60—Top of bluffs, bears N. and S.

1402 Township 19 North, Range 116 West.

66.00—Foot of bluff.
80.90—Intersect N. and S. line 80 lk's S. of cor. to sec's 4, 5, 8, 9, from which cor. I run S. 89° 26′ W. on a true line.
40.45—A sand stone 15x11x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.90—The cor. to sec's 5, 6, 7, 8. Land broken. Soil poor. Veg. grass and sage brush.

West on a random line bet. sec's 6 and 7. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.
81.10—Intersect W. boundary of Tp. 70 lk's S. of cor. to sec's 6 & 7, from which cor. I run S. 89° 30′ E. on a true line.
41.10—A sand stone 16x9x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

Chains.

81.10—The cor. to sec's 5, 6, 7, 8. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North on a random line bet. sec's 5 and 6. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

81.20—Intersect N. boundary of Tp. 40 links E. of cor. to sec's 5 & 6, from which cor. I run S. 17° E. on a true line.

41.20—A sand stone 15x9x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

81.20—The cor. to sec's 5, 6, 7, 8. Land rolling. Soil 3d rate. Veg. grass and sage brush.

July 23d, 1874.

Township 19 North, Range 116 West.

1403

General Description.

The land in this Tp. is of very poor quality below the common average.

The Little Muddy runs through the S. part of sec. 31.

There is an alkaline creek running through sec's 5, 8, 18, 19, 30, 31 and 32.

There is very little good grazing land in the Tp. it being generally covered with sage brush.

I designate sec's 4, 5, 8, 9, 16, 17, 19, 20, 29, 30, 31, 32, as coal lands and return them as such.

List of Names.

A list of Names of the individuals employed to assist in running, measuring, marking the lines and corners described in the foregoing field notes of the survey of the subdivisional lines of Tp. 19 N. Rg. 116 W. of 6th P. M. in the Territory of Wyoming, showing the respective capacities in which they acted.

Thomas Biggin,	Chainman.
Charles P. Gardner,	Chainman.
E. C. Westbury,	Flagman.
Samuel Hollis,	Axeman.

1404 Surveyor General's Office,

Cheyenne, Wyoming,

September 30th, 1874.

The foregoing field-notes of the survey of the subdivisional lines of Tp. 19 N., Rg. 116 W. of 6th P. M. in the Territory of Wyoming executed by Mortimer N. Grant under his contract of the 6th day of July, 1874, in the month of July, 1874, having been critically examined, the necessary corrections and explanations made, the said field-notes, and the surveys they describe, are hereby approved.

SILAS REED,
U. S. Surveyor General.

1405 (20-116)

Tp. 20 N. Reg. 116 West
Surveyed by
Mortimer N. Grant
1874.

1406

INDEX DIAGRAM.

Township 20 North, Range 116 West.

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Meanders Page .....

Chains.

1407 List of Assistants.

Thomas Biggin.
C. P. Gardner.
E. C. Westbury.
Samuel Hollis.

1408 Tp. 20 N. Rg. 116 W.

Chains.

To determine the proper adjustment of my compass for subdividing this Tp.

I commence at the cor. to Tp's. 19 and 20 N. Rg's. 115 & 116 W. and run N. on a blank line along E. boundary of sec. 36.

Va. 17° 30′ E.

40.00—Intersect ¼ sec. cor.

80.00—Intersect the cor. to sec's 25 & 36.

I also retrace S. boundary and find the variation to be 17° 30′ E. and the length of the line to be 80. Chains.

Survey commenced August 1st, 1874.

Survey Completed August 8th, 1874.

North bet. sec's 35 and 36. Va. 17° 35′ E.

9.75—Dry gulch, drains E.

40.00—A sand stone 14x10x5, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 17x8x5, set 10 in. deep, marked with 1 notch on S. side and 1 notch on E. side for cor. to sec's 25, 26, 35, 36. Land rolling. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 25 and 36. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

43.20—Spring branch, runs S. 80° E.

79.58—Intersect E. boundary of Tp. 30 lk's N. of cor. to sec's 25 & 36, from which cor. I run N. 89° 47′ W. on a true line.

39.79—A sand stone 12x10x5, set 7 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.58—The cor. to sec's 25, 26, 35, 36. Land rolling. Soil poor. Veg. grass and sage brush.

1409 Township 20 North, Range 116 West.

North bet. sec's 25 and 26. Va. 17° 35′ E.

5.00—Dry gulch, drains E.

40.00—A sand stone 14x10x5, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

50.20—A dry gulch, drains E.

80.00—A sand stone 15x10x4, set 9 in. deep, marked with 2 notches on S. side and 1 notch on E. side for cor. to

Chains.

sec's 23, 24, 25, 26. Land broken. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 24 and 25. Va. 17° 30′ E.

11.50—Dry gulch, drains S.
30.00—Ascend bluffs.
35.00—Top of same, bears N. and S.
79.70—Intersect E. boundary of Tp. 65. lk's N. of cor. to sec's 24 & 25, from which cor. I run N. 89° 33′ W. on a true line.
39.85—A sand stone 15x15x3, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.70—The cor. to sec's 23, 24, 25, 26. Land broken. Soil poor. Veg. grass and sage brush.

North bet. sec's 23 and 24. Va. 17° 35′ E.

40.00—A sand stone 18x10x4, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 16x10x5, set 10 in. deep, marked with 3 notches on S. side and 1 notch on E. side for cor. to sec's 13, 14, 23, 24. Land rolling. Soil poor. Veg. grass and sage brush.

1410 Township 20 North, Range 116 West.

East on a random line bet. sec's 13 and 24. Va. 17° 30′ E.

7.30—Dry gulch, drains S.
18.00—Ascend bluff.
24.00—Top of same, bears N. and S.
40.00—Set a temp. ¼ sec. cor.
80.00—Intersect E. boundary of Tp. 22 lk's N. of cor. to sec's 13 and 24, from which cor. I run N. 89° 51′ W. on a true line.
40.00—A sand stone 15x10x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.00—The cor. to sec's 13, 14, 23, 24. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 13 and 14. Va. 17° 35′ E.

40.00—A sand stone 14x10x5, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 20x10x6, set 12 in. deep, marked with 4 notches on S. side and 1 notch on E. side for cor. to

Chains.

sec's 11, 12, 13, 14. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 12 and 13. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.80—Intersect E. boundary of Tp. 38 lk's N. of cor. to sec's 12 & 13, from which cor. I run N. 89° 44′ W. on a true line.

39.90—A sand stone 20x9x4, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to sec's 11, 12, 13, 14. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1411 Township 20 North, Range 116 West.

North bet. sec's 11 and 12. Va. 17° 35′ E.

40.00—A sand stone 18x8x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x10x4, set 9 in. deep, marked with 5 notches on S. side and 1 notch on E. side for cor. to sec's 1, 2, 11, 12. Land broken. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 1 and 12. Va. 17° 30′ E.

17.15—Road, bears NW.

40.00—Set a temp. ¼ sec. cor.

80.00—Intersect E. boundary of Tp. 10 lk's N. of cor. to sec's 1 & 12 from which cor. I run N. 89° 56′ W. on a true line.

40.00—A sand stone 20x8x4, set 12 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.00—The cor. to sec's 1, 2, 11, 12. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 1 and 2. Va. 17° 35′ E.

21.00—Road, bears NW.

22.00—Enter valley of Hams Fork.

40.00—A sand stone 15x10x5, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

49.20—Hams Fork, runs N., bears SW.

49.25—I here offset 2 ch's E. to avoid creek, thence run N. 6.42 chs. thence W. 2 ch's to line.

55.00—Leave Hams Fk. bears N. 10° W.

Chains.

55.47—Intersect 5th Standard Parallel 7.10 ch's W. of cor. to sec's 32 and 33 on S. boundary of Tp. 21 N. Rg. 115 W. where I Set a sand stone 16x12x3, 9 in. deep, marked

1412 Township 20 North, Range 116 West.

C C and 1 notch on E. side and 6 notches on S. side for closing corners to sec's 1 and 2. Land rolling. Soil poor. Veg. grass and sage brush, some willows & cottonwoods along creek.

August 1st 1874.

North bet. sec's 34 and 35. Va. 17° 35′ E.

40.00—A sand stone 12x12x12, set 7 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x12x4, set 9 in. deep, marked with 1 notch on S. side and 2 notches on E. side for cor. to sec's 26, 27, 34, 35. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 26 and 35. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

80.00—Intersect N. and S. line 12 lk's S. of cor. to sec's 25, 26, 35, 36, from which cor. I run S. 89° 55′ W. on a true line.

40.00—A sand stone 14x12x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.00—The cor. to sec's 26, 27, 34, 35. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 26 and 27. Va. 17° 35′ E.

40.00—A sand stone 14x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x8x7, set 10 in. deep, marked with 2 notches on S. side and 2 notches on E. side for cor. to sec's 22, 23, 26, 27. Land rolling. Soil 3d rate. Veg.

1413 Township 20 North, Range 116 West.

grass and sage brush.

East on a random line bet. sec's 23 and 26. Va. 17° 30′ E.

21.00—Ascend high hill and a spring branch runs S.

40.00—Top of hill & temp. ¼ sec. cor.

60.00—Foot of hill.

Chains.

80.40—Intersect N. and S. line 20 lk's N. of cor. to sec's 23, 24, 25, 26, from which cor. I run N. 89° 51′ W. on a true line.

40.20—A sand stone 14x12x3, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.40—The cor. to sec's 22, 23, 26, 27. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 22 and 23. Va. 17° 35′ E.

40.00—A sand stone 16x10x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 20x8x4, set 14 in deep, marked with 3 notches on S. side and 2 notches on E. side for cor. to sec's 14, 15, 22, 23. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 14 and 23. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.80—Intersect N. and S. line 14 lk's N. of cor. to sec's 14, 13, 23, 24, from which cor. I run N. 89° 54′ W. on a true line.

39.90—A sand stone 15x10x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.80—The cor. to sec's 14, 15, 22, 23. Land broken. Soil poor. Veg. grass and sage brush.

Township 20 North, Range 116 West.

1414

North bet. sec's 14 and 15. Va. 17° 35′ E.

40.00—A sand stone 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 18x10x3, set 14 in. deep, marked with 4 notches on S. side and 2 notches on E. side for cor. to sec's 10, 11, 14, 15. Land rolling. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 11 and 14. Va. 17° 35′ E.

40.00—Set a temp. ¼ sec. cor.

79.41—Intersect N. and S. line 40 lk's N. of cor. to sec's 11, 12, 13, 14, from which cor. I run N. 89° 43′ W. on a true line.

39.70—A sand stone 20x8x3, set 14 in. deep, marked ¼ on N. side for ¼ sec. cor.

Chains.

79.41—The cor. to sec's 10, 11, 14, 15. Land rolling. Soil 3d rate. Veg. grass & sage brush.

North bet. sec's 10 and 11. Va. 17° 35′ E.

40.00—A sand stone 16x10x4, set 10 in, deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 18x10x4, set 12 in. deep, marked with 5 notches on S. side and 2 notches on E. side for cor. to sec's 2, 3, 10, 11. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 2 and 11. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.40—Intersect N. and S. line 50 lk's N. of cor. to sec's 1, 2, 11, 12, from which cor. I run N. 89° 39′ W. on a

true line.

39.70—A sand stone 15x8x5, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.40—The cor. to sec's 2, 3, 10, 11. Land rolling and broken. Veg. grass and sage brush.

North bet. secs. 2 and 3. Va. 17° 35′ E.

16.50—Ham's Fork, 80 lk's wide, 12 in. deep, runs E.

24.50—Ascend bluff.

37.00—Top of same, bears NE.

40.00—A sand stone 14x12x3, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

55.40—Intersect 5th Standard Parallel 6.76 ch's W. of cor. to sec's 31 and 32, on S. boundary of Tp. 21 N. Rg. 115 W. where I Set a sand stone 24x12x3, 14 in, deep, marked with C. C. and 2 notches on E. side and 6 notches on S. side for closing cor. to sec's 2 and 3. Land rolling and broken. Soil poor. Veg. grass, sage brush and willows along creek.

August 3d 1874.

North bet. sec's 33 and 34. Va. 17° 35′ E.

25.00—Running along E. slope of hill.

40.00—A sand stone 16x10x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 15x8x5, set 8 in. deep, marked with 1 notch on S. side and 3 notches on E. side for cor. to

Chains.

sec's 27, 28, 33, 34. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1416 Township 20 North, Range 116 West.

East on a random line bet. sec's 27 and 34. Va. 17° 30′ E.
Begin to descend.
8.00—Base of Hill.
40.00—Set a temp. ¼ sec. cor.
79.80—Intersect N. and S. line 20 lk's S. of cor .to sec's 26, 27, 34, 35 from which cor. I run S. 89° 51′ W. on a true line.
39.90—A sand stone 17x8x4, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.80—The cor. to sec's 27, 28, 33, 34. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 27 and 28. Va. 17° 35′ E.
Line ascending.
10.00—Top of hill, bears N. 15° E. S. 10° W.
40.00—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.
80.00—A sand stone 16x9x5, set 10 in. deep, marked with 2 notches on S. side and 3 notches on E. side for cor. to sec's 21, 22, 27, 28. Land rolling and broken. Veg. grass and sage brush.

East on a random line bet. sec's 22 and 27. Va. 17° 30′ E.
23.00—Descend hill, bears N. 15° E.
35.00—Foot of same.
40.00—Set a temp. ¼ sec. cor.
79.80—Intersect N. and S. line 18 lk's S. of cor. to sec's 22, 23, 26, 27 from which cor. I run S. 89° 52′ W. on a true line.

1417 Township 20 North, Range 116 West.

39.90—A sand stone 16x8x5, set 10 in. marked ¼ on N. side for ¼ sec. cor.
79.80—The cor. to sec's 21, 22, 27, 28. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 21 and 22. Va. 17° 35′ E.
32.00—Begin to descend hill.

Chains.

40.00—A sand sto[illegible] 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec[illegible]

60.00—Foot of hill.

80.00—A sand stone 18x10x3, set 12 in. deep, marked with 3 notches on S. side and 3 notches on E. side for cor. to sec's 15. 16, 21, 22. Land broken. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 15 and 22. Va. 17° 30′ E.

3.00—Begin to ascend hill.

23.00—Top of hill and begin to descend.

40.00—Set a temp. ¼ sec. cor.

55.00—Foot of hill.

79.60—Intersect N. and S. line 40 lk's S. of cor. to sec's 14, 15, 22, 23 from which cor. I run S. 89° 43′ W. on a true line.

39.80—A sand stone 16x8x5, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.60—The cor. to sec's 15, 16, 21, 22. Land rough. Soil poor.

1418 Township 20 North, Range 116 West.

Veg. grass and sage brush.

North bet. sec's 15 and 16. Va. 17° 35′ E.

40.00—A sand stone 15x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 17x8x4, set 10 in. deep, marked with 4 notches on S. side and 3 notches on E. side for cor. to sec's 9, 10, 15, 16. Land rough. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 10 and 15. Va. 17° 30′ E.

10.00—Ascend steep hill.

40.00—Set a temp. ¼ sec. cor.

48.50—Top of hill, bears N. and S.

55.00—Base of same.

79.90—Intersect N. and S. line 80 lk's S. of cor. to sec's 10, 11, 14, 15, from which cor. I run S. 89° 26′ W. on a true line.

39.95—A sand stone 15x10x4, set 8 in. deep, marked with ¼ on N. side for ¼ sec. cor.

79.90—The cor. to sec's 9, 10, 15, 16. Land rough. Soil poor. Veg. grass and sage brush.

Chains.

North bet. sec's 9 and 10. Va. 17° 35′ E.

40.00—A sand stone 15x10x6, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

71.71—Hams Fork, 75 lk's wide 12 in. deep, runs E.

80.00—A sand stone 16x8x5, set 9 in, deep, marked with 5 notches on S. side and 3 notches on E. side for cor. to sec's 3, 4, 9, 10. Land rough. Soil 3d rate. Veg. grass and sage brush.

1419 Township 20 North, Range 116 West.

East on a random line bet. sec's 3 and 10. Va. 17° 30′ E.

24.00—Ham's Fork 80 lk's wide 12 in. deep, runs NE.

38.00—Cross short bend in Hams Fk. runs NE. bears NW.

40.00—Set a temp. ¼ sec. cor.

50.47—Hams Fk. runs SE.

55.60—Hams Fk. runs NE.

79.50—Intersect N. and S. line 50 lk's S. of cor. to sec's 2, 3, 10, 11, from which cor. I run S. 89° 39′ W. on a true line.

39.75—A sand stone 36x20x4, set in a mound of stone 4 ft. high and 8 ft. base, marked ¼ on N. side for ¼ sec. cor.

79.50—The cor. to sec's 3, 4, 9, 10. Land rolling. Soil 3d rate. Veg. grass & sage brush.

North bet. sec's 3 and 4. Va. 17° 35′ E.

38.00—Dry gulch, drains W.

39.10—Road, bears E. and W.

40.00—A sand stone 16x12x3, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

55.95—Intersect 5th Standard Parallel 5.70 ch's W. of cor. to Tp's 21 N. Rgs 115 and 116 W. where I Set a sand stone 17x10x4, 10 in. deep, marked with C. C. and 3 notches on E. side and 6 notches on S. side for closing cor. to sec's 3 & 4. Land broken. Soil 3d rate. Veg. grass and sage brush.

Aug. 4th, 1874.

North bet. sec's 32 and 33. Va. 17° 35′ E.

40.00—A sand stone 16x8x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

1420 Township 20 North, Range 116 West.

80.00—A sand stone 15x10x4, set 9 in. deep, marked with 1 notch on S. side and 4 notches on E. side for cor. to

Chains.

sec's 28, 29, 32, 33. Land broken. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 28 and 33. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

50.00—Ascend hill.

78.00—Top of same, bears N. 15° E.
Descend to cor.

79.90—Intersect N. and S. line 20 lks S. of cor. to sec's 27, 28, 33, 34 from which cor. I run S. 89° 51′ W. on a true line.

39.95—A sand stone 14x12x3, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.90—The cor. to sec's 28, 29, 32, 33. Land rough. Soil poor. Veg. grass and sage brush.

North bet. sec's 28 and 29. Va. 17° 35′ E.

40.00—A sand stone 18x10x3, set 12 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x12x3, set 10 in. deep, marked with 2 notches on S. side and 4 notches on E. side for cor. to sec's 20, 21, 28, 29. Land rough. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 21 and 28. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

50.00—Begin to ascend hill.

72.50—Top of same, bears N. 15° E.

1421 Township 20 North, Range 116 West.

80.20—Intersect N. and S. line 40 lk's S. of cor. to sec's 21, 22, 27, 28, from which cor. I run S. 89° 43′ W. on a true line.

40.10—A sand stone 16x10x6, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.20—The cor. to sec's 20, 21, 28, 29. Land rough. Soil poor. Veg. grass and sage brush.

North bet. sec's 20 and 21. Va. 17° 35′ E.

40.00—A sand stone 12x8x8, set 7 in. deep, marked ¼ on W. side for ¼ sec. cor.

45.00—Begin to ascend Bluff.

58.00—Top of hill, bears N. 20° E. descending.

Chains.

80.00—A sand stone 18x14x3, set 12 in. deep, marked with 3 notches on S. side and 4 notches on E. side for cor. to sec's 16, 17, 20, 21. Land rough. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 16 and 21. Va. 17° 30′ E.

5.30—Top of bluffs, bears N. 20° E. descend.

10.00—Foot of same.

40.00—Set a temp. ¼ sec. cor.

80.00—Intersect N. and S. line 40 lk's S. of cor. to sec's 15, 16, 21, 22 from which cor. I run S. 89° 43′ W. on a true line.

40.00—A sand stone 20x10x3, set 14 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.00—The cor. to sec's 20, 21, 16, 17. Land broken. Soil poor. Veg. grass and sage brush.

1422 Township 20 North, Range 116 West.

North bet. sec's 16 and 17. Va. 17° 35′ E.

40.00—A sand stone 15x8x6, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 18x12x5, set 12 in. deep, marked with 4 notches on S. side and 4 notches on E. side for cor. to sec's 8, 9, 16, 17. Land rough. Soil poor. Veg. grass and sage brush.

East on a random line bet. sec's 9 and 16. Va. 17° 30′ E.

Ascend hill.

26.30—Top of same, bears N. and S.

33.00—Foot of same.

40.00—Set a temp. ¼ sec. cor.

80.26—Intersect N. and S. line 48 lk's S. of cor. to sec's 9, 10, 15, 16, from which cor. I run S. 89° 39′ W. on a true line.

40.13—A sand stone 16x14x3, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.26—The cor. to sec's 8, 9, 16, 17. Land rough and broken. Veg. grass and sage brush.

August 5th 1874.

North bet. sec's 8 and 9. Va. 17° 35′ E.

40.00—A sand stone 15x14x3, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

Chains.

80.00—A sand stone 14x10x8, set 8 in. deep, marked with 5 notches on S. side and 4 notches on E. side for cor. to sec's 4, 5, 8, 9. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1423 Township 20 North, Range 116 West.

East on a random line bet. sec's 4 and 9. Va. 17° 30′ E.

32.60—Descend bluffs, bears N. and S.

40.00—Set a temp. ¼ sec. cor.

43.00—Foot of bluffs & valley of Ham's Fk.

55.15—Ham's Fork 70 lk's wide, 12 in. deep, runs SE.

80.20—Intersect N. and S. line 30 lk's S. of cor. to sec's 3, 4, 9, 10, from which cor. I run S. 89° 47′ W. on a true line.

40.10—A sand stone 16x8x5, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.

80.20—The cor. to sec's 4, 5, 8, 9. Land broken. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 4 and 5. Va. 17° 35′ E.

40.00—A sand stone 12x7x6, set 7 in. deep, marked ¼ on W. side for ¼ sec. cor.

55.75—Intersect 5th Standard Parallel 6.70 ch's W. of cor. to sec's 35 & 36, on S. boundary of Tp. 21 N. Rg 116 W. where I Set a sand stone 14x10x8, 8 in. deep, marked C. C. and 4 notches on E. side and 6 notches on S. side for closing cor. to sec's 4 and 5. Land broken. Soil poor. Veg. grass and sage brush.

North bet. sec's 31 and 32. Va. 17° 35′ E.

25.00—Dry gulch, drains S. 30° W.

40.00—A sand stone 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x12x4, set 10 in. deep, marked with 1 notch on S. side and 5 notches on E. side for cor. to sec's 29, 30, 31, 32. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1424 Township 20 North, Range 116 West.

East on a random line bet. sec's 29 and 32. Va. 17° 30′ E.

24.50—Dry gulch, drains S. 20° W.

35.00—Foot of bluff.

40.00—Set a temp. ¼ sec. cor.

Chains.

60.40—Top of bluff, bears N. 10° E.
75.00—Foot of same.
76.00—Dry gulch, drains N.
80.30—Intersect N. and S. line 10 lk's S. of cor. to sec's 28, 29, 32, 33, from which cor. I run S. 89° 56′ W. on a true line.
40.15—A sand stone 16x8x4, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.
80.30—The cor. to sec's 29, 30, 31, 32. Land rough. Soil very poor. Veg. grass, Cedars & sage brush.

West on a random line bet. sec's 30 and 31. Va. 17° 30′ E.
40.00—Set a temp. ¼ sec. cor.
82.80—Intersect W. boundary of Tp. 48 lk's S. of cor. to sec's 30 & 31 from which cor. I run S. 89° 39′ E. on a true line.
42.80—A sand stone 14x12x3, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
82.80—The cor. to sec's 29, 30, 31, 32. Land rolling. Soil 3d rate. Veg. grass and sage brush.

North bet. sec's 29 and 30. Va. 17° 35′ E.
40.00—A sand stone 15x8x8, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

1425 Township 20 North, Range 116 West.

80.00—A sand stone 20x8x5, set 14 in. deep, marked with 2 notches on S. side and 5 notches on E. side for cor. to sec's 19, 20, 29, 30. Land rolling. 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 20 and 29. Va. 17° 30′ E.
3.00—Dry gulch, drains S.
14.50—Dry gulch, drains S.
40.00—Set a temp. ¼ sec. cor.
45.00—Begin to ascend bluffs.
71.70—Top of same, bears N. 20° E.
79.99—Intersect N. and S. line 20 lk's S. of cor. to sec's 20, 21, 28, 29, from which cor. I run S. 89° 52′ W. on a true line.
40.00—A sand stone 15x12x3, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.
79.99—The cor. to sec's 19, 20, 29, 30. Land rough. Soil poor. Veg. grass and sage brush.

Chains.

West on a random line bet. sec's 19 and 30. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

83.00—Intersect W. boundary of Tp. at the cor. to sec's 19 & 30 from which cor. I run East on a true line.

43.00—A sand stone 15x8x5, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

83.00—The cor. to sec's 19, 20, 29, 30. Land rolling. Soil 3d rate. Veg. grass and sage brush.

August 6th 1874.

1426 Township 20 North, Range 116 West.

North bet. sec's 19 and 20. Va. 17° 35′ E.

9.00—Dry gulch, drains S. 5° E.

40.00—A sand stone 16x8x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 15x8x8, set 9 in. deep, marked with 3 notches on S. side and 5 notches on E. side for cor. to sec's 17, 18, 19, 20. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 17 and 20. Va. 17° 30′ E.

15.00—Dry gulch, drains S.

40.00—Set a temp. ¼ sec. cor.

50.00—Begin to ascend bluff.

79.45—Intersect N. and S. line 20 lk's N. of cor. to sec's 16, 17, 20, 21 from which cor. I run N. 89° 51′ W. on a true line.

39.72—A sand stone 15x10x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.45—The cor. to sec's 17, 18, 19, 20. Land rough. Soil 3d rate. Veg. grass and sage brush.

West on a random line bet. sec's 18 and 19. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

83.53—Intersect W. boundary of Tp. 17 lk's S. of cor. to sec's 18 & 19 from which cor. I run S. 89° 53′ E. on a true line.

43.53—A sand stone 16x12x4, set 10 in. deep, marked ¼ on N. side for ¼ sec. cor.

83.53—The cor. to sec's 17, 18, 19, 20. Land rolling. Soil 3d rate. Veg. grass and sage brush.

Chains.

1427 Township 20 North, Range 116 West.

North bet. sec's 17 and 18. Va. 17° 35′ E.

25.00—Dry creek, drains S. 10° E.

36.00—Same, bears N. 10° W.

40.00—A sand stone 15x10x4, set 9 in. deep, marked ¼ on W. side for ¼ sec. cor.

80.00—A sand stone 16x10x4, set 10 in. deep, marked with 4 notches on S. side and 5 notches on E. side for cor. to sec's 7, 8, 17, 18. Land rolling. Soil 3d rate. Veg. grass and sage brush.

East on a random line bet. sec's 8 and 17. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

79.78—Intersect N. and S. line at the cor. to sec's 8, 9, 16, 17 from which cor. I run West on a true line.

39.89—A sand stone 14x10x4, set 8 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.78—The cor. to sec's 7, 8, 17, 18. Land rolling. Soil 3d rate. Veg. grass and sage brush.

West on a random line bet. sec's 7 and 18. Va. 17° 30′ E.

10.40—Dry gulch, drains S. 10° E.

40.00—Set a temp. ¼ sec. cor.

83.60—Intersect W. boundary of Tp. 24 lk's S. of cor. to sec's 7 & 18 from which cor. I run S. 89° 50′ E. on a true line.

43.60—A sand stone 15x12x3, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

83.60—The cor. to sec's 7, 8, 17, 18. Land rolling. Soil 3d rate. Veg. grass and sage brush.

August 7th 1874.

1428 Township 20 North, Range 116 West.

North bet. sec's 7 and 8. Va. 17° 35′ E.

40.00—A sand stone 14x10x4, set 8 in. deep, marked ¼ on W. side for ¼ sec. cor.

75.00—Dry gulch, drains S. 10° W.

80.00—A sand stone 15x12x4, set 8 in. deep, marked with 5 notches on S. side and 5 notches on E. side for cor. to sec's 5, 6, 7, 8. Land rolling. Soil 3d rate. Veg. grass and sage brush.

Chains.

East on a random line bet. sec's 5 and 8. Va. 17° 30′ E.

3.80—Dry gulch, drains S. 10° W.

40.00—Set a temp. ¼ sec. cor.

79.63—Intersect N. and S. line 50 lk's N. of cor. to sec's 4, 5, 8, 9, from which cor. I run N. 89-39′ W. on a true line.

39.81—A sand stone 16x10x4, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

79.63—The cor. to sec's 5, 6, 7, 8. Land rough. Soil 3d rate. Veg. grass and sage brush.

West on a random line bet. sec's 6 and 7. Va. 17° 30′ E.

40.00—Set a temp. ¼ sec. cor.

84.28—Intersect W. boundary of Tp. 30 links S. of cor. to sec's 7 & 6 from which cor. I run S. 89° 47′ E. on a true line.

44.28—A sand stone 15x8x5, set 9 in. deep, marked ¼ on N. side for ¼ sec. cor.

84.28—The cor. to sec's 5, 6, 7, 8. Land rolling. Soil 3d rate. Veg. grass and sage brush.

1429 Township 20 North, Range 116 West.

North bet. sec's 5 and 6. Va. 17° 35′ E.

27.00—Dry gulch, drains S. 10° E.

40.00—A sand stone 16x8x4, set 10 in. deep, marked ¼ on W. side for ¼ sec. cor.

55.48—Intersect 5 Standard Parallel 5.70 ch's W. of cor. to sec's 34 & 35 on S. boundary of Tp. 21 N. Rg 116 W. where I Set a sand stone 18x12x3, 12 in. deep, marked C C and 5 notches on E. side and 6 notches on S. side for closing cor. to sec's 5 & 6. Land rolling. Soil 3d rate. Veg. grass and sage brush.

August 8th 1874.

General Description.

The land in this Tp. is of a very poor quality, except in the valley of Ham's Fork where it is 1st rate.

Ham's Fork runs through sec. 2 and bet. sec's 3 and 10, through the NE. ¼ of sec. 9 and through sec. 4.

This creek is from 75 to 100 lk's wide and from 1 to 2 ft. deep. The water is very pure and contains Trout and other fish.

There is some very fine hay land in sec's 1, 2, 3, 10, and 4 along creek bottom. The balance of the bottom land is covered with willow brush.

The grazing on the uplands is very poor, it being in most places covered with sage brush.

I find coal in sec's 2, 3, 4, 5, 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, 29, 32 and 33, and designated the same as coal lands.

List of Names

1430 of the individuals employed to assist in running, measuring and marking the lines and corners described in the foregoing field notes of the survey of the subdivisional lines of Tp. 20 N. Rg 116 West of the 6th P. M. in Wyoming Territory, showing the respective capacities in which they acted.

Thomas J. Biggin,	Chainman.
Charles P. Gardner,	Chainman.
E. C. Westbury,	Flagman.
Samuel Hollis,	Axeman.

We hereby certify that we assisted Mortimer N. Grant deputy surveyor in surveying the following lines viz: subdivisional lines of Township 20 North, Range 115 W. and Townships 18, 19, and 20 North, Range 116 West all being West of the Sixth Principal Meridian in the Territory of Wyoming and that said Townships have been in all respects to the best of our knowledge and belief well and faithfully surveyed and the boundary monuments planted according to the instructions furnished by the Surveyor General.

Thos. J. Biggin,	Chainman.
Chas. P. Gardner,	Chainman.
Edward Charles Westbury,	Flagman.
Samuel Hollis,	Axeman.

Sworn to and subscribed to this 16th day of August A. D. 1874.
I hereby certify that there was no civil offic's present.

MORTIMER N. GRANT,
Deputy Surveyor.

1431 I. Mortimer N. Grant deputy Surveyor, do solemnly swear that in pursuance of a contract with Silas Reed, Surveyor General of the public lands of the United States in the Territory of Wyoming, bearing date the 6th day of July 1874, I have well faithfully and truly in my own proper person and in strict conformity with the instructions furnished by the Surveyor General, the printed Manual of Surveying Instruc-

tions and the laws of the United States surveyed and established the subdivisional lines of the following designated townships towit: Township 20 North, Range 115 West and Townships 18, 19, and 20 North, Range 116 West, all being West of the Sixth Principal Meridian, in the Territory of Wyoming, and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the surveying manual and printed instructions and in the specific manner described in the field notes and that the foregoing are the true and original field notes of such survey.

MORTIMER N. GRANT,
U. S. Deputy Surveyor.

Sworn to & Subscribed to this 20th day of August A. D. 1874.

(Seal) STEPHEN W. DOWNEY,
Notary Public.

Stephen W. Downey
Notary Public
Albany County, Wyoming.

1432 Surveyor General's Office,

Cheyenne, Wyoming, Sept. 30th, 1874.

The foregoing field-notes of the survey of the subdivisional lines of Tp. 20 N. Rg. 116 W. of the 6th Principal Meridian in Wyoming Territory, executed by Mortimer N. Grant under his contract the 6th day of July, 1874, in the month of August, 1874, having been critically examined, the necessary corrections and explanations made, the said field-notes, and the surveys they describe, are hereby approved.

SILAS REED,
U. S. Surveyor General.

I, Alpheus P. Hanson, do hereby certify the above and foregoing to be a true, correct and complete transcript of exhibit marked plaintiff's exhibit in the case of United States of America, plaintiff, Diamond Coal & Coke Company, defendant.

Witness my hand this third day of February, A. D. 1908.

U. S. Surveyor General
for Wyoming.

BLUEPRINT
TOO
LARGE
FOR
FILMING

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